

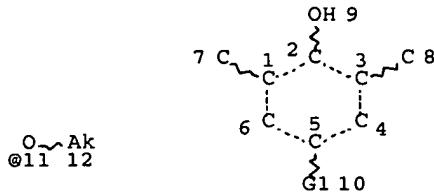
HOA VAN LE
PRIMARY EXAMINER
Noted 01/12/09

10/562,361

HOA VAN LE
PRIMARY EXAMINER

=> d que 150

L2 5 SEA FILE=REGISTRY ABB=ON PLU=ON (108-95-2/BI OR 2203-14-7
/BI OR 317804-55-0/BI OR 54845-41-9/BI OR 56272-52-7/BI)
L11 SCR 1918
L13 STR



VAR G1=AK/CB/X/11

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 7

CONNECT IS E2 RC AT 8

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L15 SCR 1992

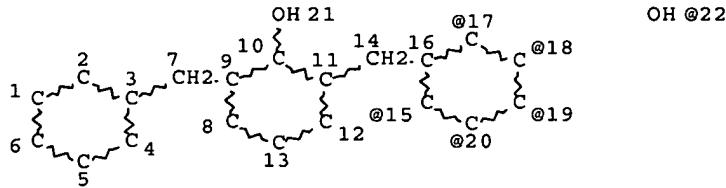
L17 3232 SEA FILE=REGISTRY SSS FUL L13 NOT (L11 OR L15)

L18 3 SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND L2

L19 2 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L18

L20 1 SEA FILE=REGISTRY ABB=ON PLU=ON L19 NOT MAN/CI

L21 STR



VPA 22-17/18/19/20/15 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L24 1044 SEA FILE=REGISTRY SUB=L17 SSS FUL L21

L25 424 SEA FILE=REGISTRY ABB=ON PLU=ON L24 AND 3/NR

L28 100 SEA FILE=REGISTRY ABB=ON PLU=ON L25 AND 4-HYDROXY?/CNS

10/562,361

L29 324 SEA FILE=REGISTRY ABB=ON PLU=ON L25 NOT L28
L30 9433 SEA FILE=REGISTRY ABB=ON PLU=ON 108-95-2/CRN
L32 186 SEA FILE=HCAPLUS ABB=ON PLU=ON L28
L33 715 SEA FILE=HCAPLUS ABB=ON PLU=ON L29
L34 66 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND L33
L35 4775 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
L36 35397 SEA FILE=HCAPLUS ABB=ON PLU=ON L30
L37 147 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L36
L39 80249 SEA FILE=HCAPLUS ABB=ON PLU=ON L20
L40 306 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L39
L42 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PHOTOG?/SC,SX
L43 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND PHOTOG?/SC,SX
L44 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND PHOTOG?/SC,SX
L45 75 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 OR L44
L48 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND (RECORD? OR
 PRINT?)
L49 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L48
L50 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 OR L49

=> sel 150 hit rn 1-
E6 THROUGH E43 ASSIGNED

=> d 150 1-32 ibib ed abs hitstr hitind

L50 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:467926 HCAPLUS Full-text
DOCUMENT NUMBER: 143:8512
TITLE: Manufacture of phenol derivatives without using
special equipment
INVENTOR(S): Inatomi, Shigeki; Tagami, Noboru
PATENT ASSIGNEE(S): Asahi Organic Chemicals Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

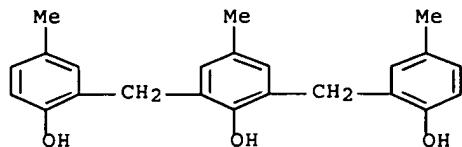
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 2005139087 | A | 20050602 | JP 2003-375157 | 20031105 |
| PRIORITY APPLN. INFO.: JP 2003-375157 20031105 | | | | |

ED Entered STN: 02 Jun 2005
AB The derivs., useful as additives for pos.-working photoresists, intermediates or curing agents for epoxy resins, etc., are manufactured by heterogeneous reaction of 1 mol phenols with 0.1-0.6 mol methylolphenols in the presence of ≥5 weight parts (based on 100 weight parts of the phenols) phosphoric acid analogs and unreactive O-containing organic solvents as auxiliary solvents. Thus, 108 g o-cresol was treated with 100.9 g bis(4-hydroxy-3-hydroxymethyl-5-methylphenyl)methane in the presence of 84.7 g 86% H₃PO₄ in 43.2 g MeOH in a glass reactor without corrosion of an inner surface of a SUS 316 stirring blade to give 92.6% bis[4-hydroxy-3-(4-hydroxy-3-methylbenzyl)-5-methylphenyl]methane.
IT 1620-68-4P, 2,6-Bis(2-hydroxy-5-methylbenzyl)-4-methylphenol
172210-41-2P
 (manufacture of phenol derivs. by heterogeneous reaction of phenols with methylolphenols in the presence of phosphoric acid analog catalysts and unreactive O-containing organic solvents)

10/562,361

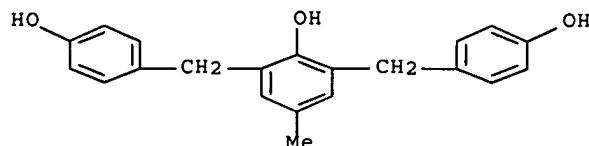
RN 1620-68-4 HCPLUS

CN Phenol, 2,6-bis [(2-hydroxy-5-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



RN 172210-41-2 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM C07C037-16

ICS C07C039-16; G03F007-023; H01L021-027; C07B061-00

CC 37-2 (Plastics Manufacture and Processing)

Section cross-reference(s): 25, 35, 74

IT 1620-68-4P, 2,6-Bis(2-hydroxy-5-methylbenzyl)-4-methylphenol

7451-94-7P 122738-49-2P 167687-31-2P 172210-41-2P

(manufacture of phenol derivs. by heterogeneous reaction of phenols with methylolphenols in the presence of phosphoric acid analog catalysts and unreactive O-containing organic solvents)

L50 ANSWER 2 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:250337 HCPLUS Full-text

DOCUMENT NUMBER: 140:294778

TITLE: Negative-working resist composition containing polyfunctional phenolic crosslinking agent

INVENTOR(S): Yasunami, Shoichiro; Shirakawa, Hiroshi; Adegawa, Yutaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

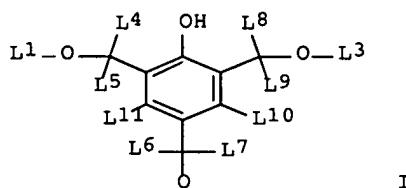
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| JP 2004094025 | A | 20040325 | JP 2002-256673 | 20020902 |
| JP 4102140 | B2 | 20080618 | JP 2002-256673 | 20020902 |

OTHER SOURCE(S): MARPAT 140:294778

ED Entered STN: 26 Mar 2004
 GI

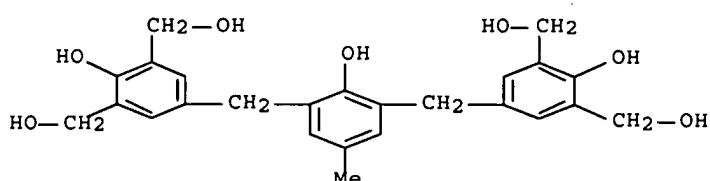


AB The neg.-working resist composition comprises (a) an alkali-soluble resin, (b) a photoacid, and (c) a crosslinking agent I (L1-3 = H, alkyl, acyl; L4-9 = H, alkyl, alkenyl; and L10-11 = H, alkyl, alkoxy, halo) capable of crosslinking the alkali-soluble resin. The alkali-soluble resin may be represented by [H₂C-CA{C₆H₃R₁(OH)_n}] (A = H, alkyl, halo, cyano; R_{1,2} = H, halo, alkyl, etc.; and n = integer 1-3).

IT 197087-73-3P
 (neg.-working resist composition containing polyfunctional phenolic crosslinking agent)

RN 197087-73-3 HCAPLUS

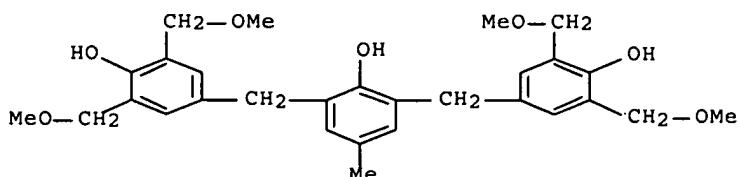
CN 1,3-Benzenedimethanol, 5,5'-[(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)]bis[2-hydroxy- (CA INDEX NAME)



IT 197087-74-4P
 (neg.-working resist composition containing polyfunctional phenolic crosslinking agent)

RN 197087-74-4 HCAPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



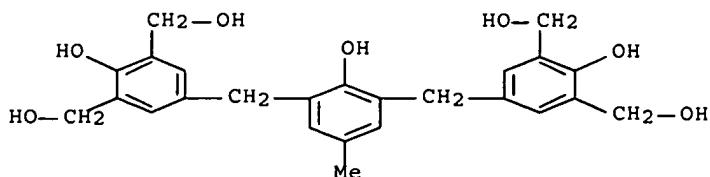
IC ICM G03F007-038

ICS B82B001-00; C08F012-04; C08F012-14; C08F016-14; C08F020-10;
 C08F020-54; G03F007-004; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 IT 161679-95-4P 161679-98-7P 162846-57-3P 197087-73-3P
 (neg.-working resist composition containing polyfunctional phenolic
 crosslinking agent)
 IT 109185-69-5P 161679-94-3P 185502-11-8P 185502-14-1P
 185502-15-2P 197087-74-4P
 (neg.-working resist composition containing polyfunctional phenolic
 crosslinking agent)

L50 ANSWER 3 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:154642 HCPLUS Full-text
 DOCUMENT NUMBER: 140:207472
 TITLE: Chemically amplified negative photoresist
 compositions for electron beam, x-ray, and extreme
 UV with high resolution and sensitivity and
 suppressed development defect
 INVENTOR(S): Adegawa, Yutaka
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 68 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

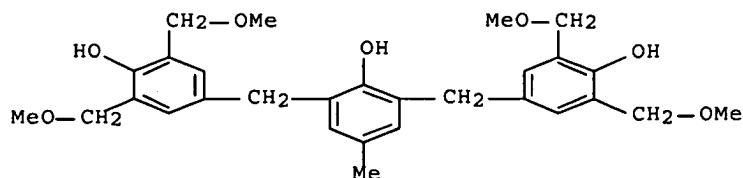
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004062044 | A | 20040226 | JP 2002-223205 | 20020731 |
| PRIORITY APPLN. INFO.: | | | JP 2002-223205 | 20020731 |

ED Entered STN: 26 Feb 2004
 AB The compns. comprise (A) alkali-soluble block copolymers, which contain 1st
 blocks having a repeating unit $\text{CH}_2\text{CR}_1\text{L}[\text{C}_6\text{H}_5-\text{m-nRm(OH)}_n]$ ($\text{R}_1 = \text{H}, \text{Me}$; L =
 single bond, divalent linking group; R = H, alkyl, aralkyl, alkoxy,
 aralkyloxy; m, n = 1-3; m + n = 5; ≥ 1 of 4 Rs \neq H when n = 1) and 2nd blocks
 having no alkali-soluble groups, (B) photoacid generators sensitive to
 electron beams, X-ray, or extreme UV (EUV), and (C) acid-sensitive
 crosslinkers.
 IT 197087-73-3P 197087-74-4P
 (crosslinker; neg. photoresists for electron beam, x-ray, and
 extreme UV with high resolution and sensitivity and suppressed
 development defect)
 RN 197087-73-3 HCPLUS
 CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-
 phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS C08F293-00; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 161679-94-3P 161679-95-4P 161679-98-7P 185502-11-8P
185502-14-1P 185502-15-2P 197087-73-3P
197087-74-4P

(crosslinker; neg. photoresists for electron beam, x-ray, and extreme UV with high resolution and sensitivity and suppressed development defect)

L50 ANSWER 4 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:18781 HCPLUS Full-text

DOCUMENT NUMBER: 140:84637

TITLE: Resist composition

INVENTOR(S): Takahashi, Hyou; Yasunami, Shoichiro; Mizutani, Kazuyoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 47 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

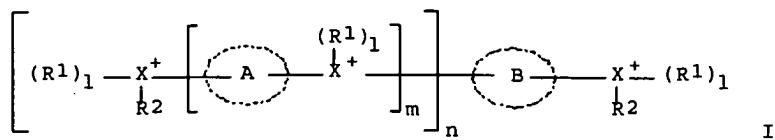
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 20040005513 | A1 | 20040108 | US 2003-606845 | 20030627 |
| US 7083892 | B2 | 20060801 | | |
| JP 2004086188 | A | 20040318 | JP 2003-185174 | 20030627 |
| US 20060147837 | A1 | 20060706 | US 2006-359424 | 20060223 |
| PRIORITY APPLN. INFO.: | | | JP 2002-190581 | A 20020628 |
| | | | US 2003-606845 | A3 20030627 |

OTHER SOURCE(S): MARPAT 140:84637

ED Entered STN: 09 Jan 2004

GI

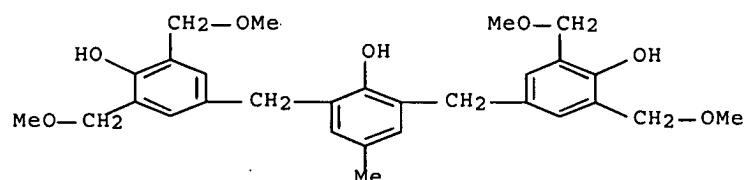


AB The resist composition of the present invention, ensuring excellent pattern profile and excellent isolation performance for use in the pattern formation by the irradiation of actinic rays or radiation, particularly, electron beam, X ray or EUV light, which comprising (A) a compound having a specific partial structure represented by I [X = sulfur atom, iodine atom; R1, R2 = alkyl, aryl; A, B = hydrocarbon structure; l = 0, 1; m = 0-10; n = 1-5] and a counter ion, the compound generating an acid upon irradiation of actinic rays or radiation, (B) an alkali-soluble resin, and (C) a crosslinking agent of undergoing an addnl. reaction with the alkali-soluble resin.

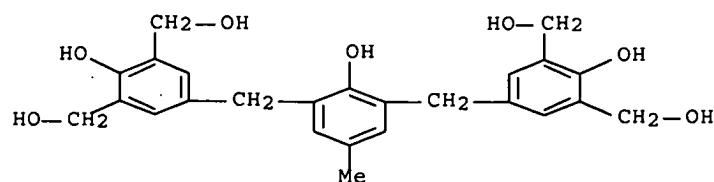
IT 197087-74-4P
(crosslinking agent for resist composition showing excellent pattern profile and isolation performance)

RN 197087-74-4 HCAPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IT 197087-73-3
(preparation of crosslinking agent for resist composition showing excellent pattern profile and isolation performance)
RN 197087-73-3 HCAPLUS
CN 1,3-Benzenedimethanol, 5,5'-[{(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)}bis[2-hydroxy- (CA INDEX NAME)



IC ICM G03C001-492
ICS G03C001-494; G03C001-76
INCL 430270100
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic

and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT 161679-94-3P 185502-14-1P 185502-15-2P 197087-74-4P
 (crosslinking agent for resist composition showing excellent pattern profile and isolation performance)

IT 50-00-0, Formalin, reactions 141-78-6, Ethyl acetate, reactions 110726-28-8, Trisp-PA 161679-95-4 161679-98-7 197087-73-3
 (preparation of crosslinking agent for resist composition showing excellent pattern profile and isolation performance)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 5 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:18087 HCPLUS Full-text

DOCUMENT NUMBER: 140:84635

TITLE: Chemically amplified negative resists containing alkali-soluble dendrimers and suppressing development defects

INVENTOR(S): Adekawa, Yutaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004004249 | A | 20040108 | JP 2002-159047 | 20020531 |
| PRIORITY APPLN. INFO.: | | | JP 2002-159047 | 20020531 |

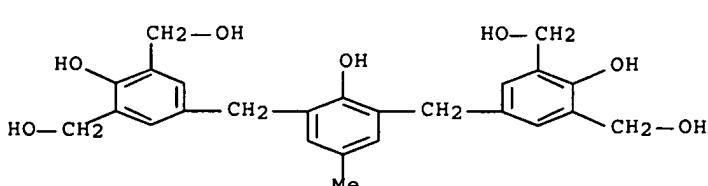
ED Entered STN: 09 Jan 2004

AB The resists, producing defectless square patterns, comprise (A) dendritic alkali-soluble resins, (B) radiation acid generators, and (C) crosslinking agents forming C-C bonds upon action of acid catalysts. The alkali-soluble resins may be [R1R'1CAC6H2-n(OR2)nR3R4Xm] [R1, R'1 = H, halo, cyano, (halo)alkyl; R2 = H, (cyclo)alkyl, aryl, aralkyl, acyl; R3, R4 = H, halo, cyano, (cyclo)alkyl, alkenyl, aralkyl, aryl; A = single bond, alk(en)ylene, cycloalkylene, arylene, etc.; m = 2, 3; n = 0, 1 (m + n ≤ 3); X = CH2, O, S].

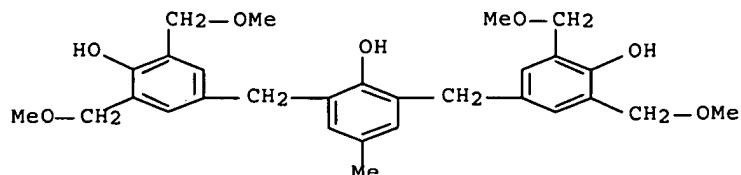
IT 197087-73-3P 197087-74-4P
 (crosslinking agents; chemical amplified neg. resists containing alkali-soluble dendritic binder resins forming defect-free square patterns)

RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS
 CN Phenol, 2,6-bis[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)

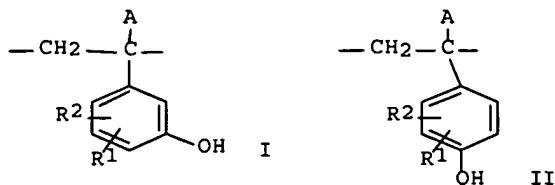


IC ICM G03F007-038
 ICS C08G065-34; H01L021-027; H01L021-30
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 25
 IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P
 185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P
 197087-74-4P
 (crosslinking agents; chemical amplified neg. resists containing alkali-soluble dendritic binder resins forming defect-free square patterns)

L50 ANSWER 6 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:809865 HCPLUS Full-text
 DOCUMENT NUMBER: 139:314465
 TITLE: Negative-working resist composition
 INVENTOR(S): Yasunami, Shoichiro; Adekawa, Yutaka; Shirakawa, Hiroshi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2003295438 | A | 20031015 | JP 2002-96410 | 20020329 |
| JP 3841405 | B2 | 20061101 | | |
| US 20030203305 | A1 | 20031030 | US 2003-396583 | 20030326 |
| US 6746813 | B2 | 20040608 | | |
| PRIORITY APPLN. INFO.: | | | JP 2002-96410 | A 20020329 |

ED Entered STN: 15 Oct 2003
 GI

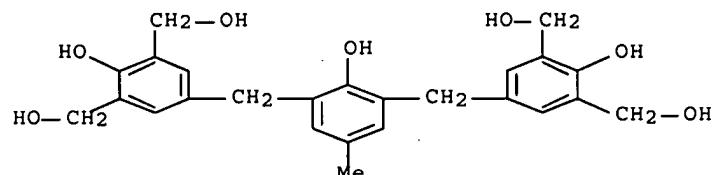


AB The neg.-working resist composition comprises (A) alkali-soluble resin I (A = H, alkyl, etc.; and R_{1,2} = H, halo, alkyl, etc.) and an alkali-soluble resin II, (B) a crosslinker, (C) a photoacid, and (D) a N-containing base compound. The neg.-working resist composition exhibited high sensitivity in a semiconductor device fabrication using an electron beam or an x-ray.

IT 197087-73-3 197087-74-4
(crosslinker; neg.-working resist composition from)

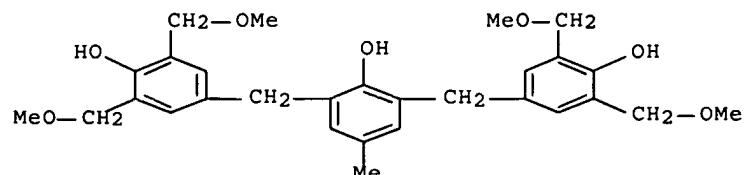
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-[{(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)}bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-bis(methoxymethyl)phenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS C08F012-22; G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 76

IT 161679-95-4 161679-98-7 185502-11-8 185502-14-1 185502-15-2
197087-73-3 197087-74-4

(crosslinker; neg.-working resist composition from)

L50 ANSWER 7 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

10/562,361

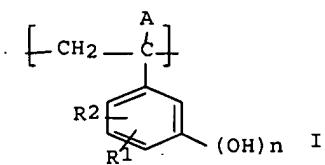
ACCESSION NUMBER: 2003:806135 HCAPLUS Full-text
DOCUMENT NUMBER: 139:314459
TITLE: Negative-working resist composition containing
quaternary ammonium salt
INVENTOR(S): Yasunami, Shoichiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2003295439 | A | 20031015 | JP 2002-96411 | 20020329 |
| JP 3856306 | B2 | 20061213 | | |
| PRIORITY APPLN. INFO.: | | | JP 2002-96411 | 20020329 |

OTHER SOURCE(S): MARPAT 139:314459

ED Entered STN: 15 Oct 2003

GI

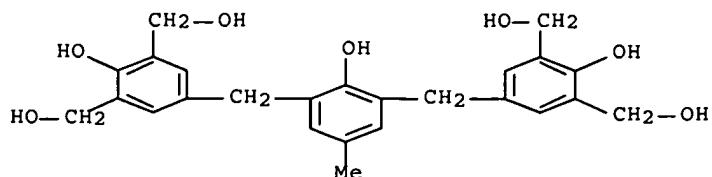


AB The neg.-working resist comprises (A) an alkali-soluble polymer I (A = H, alkyl, halo, etc.; R_{1,2} = H, halo, alkyl, alkenyl, etc.; and n = integer 1-3), (B) a crosslinker, (C) a photoacid, and a quaternary ammonium salt R₃R₄R₅R₆N⁺B- (R₃₋₆ = alkyl, alkenyl, aryl, etc.; and B = OH, halo, etc.). The neg.-working resist exhibited high sensitivity and high reson. when it is used as an electron-beam resist and an x-ray resist.

IT 197087-73-3 197087-74-4
(crosslinker for neg.-working resist composition containing quaternary ammonium salt)

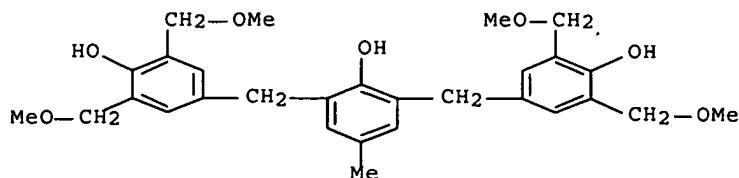
RN 197087-73-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS C08F012-22; G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 161679-95-4 161679-98-7 185502-11-8 185502-14-1 185502-15-2
197087-73-3 197087-74-4

(crosslinker for neg.-working resist composition containing quaternary ammonium salt)

L50 ANSWER 8 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:653456 HCPLUS Full-text

DOCUMENT NUMBER: 139:171285

TITLE: Negative-working resist composition containing sulfonic acid-generating photoacid

INVENTOR(S): Yasunami, Shoichiro; Shirakawa, Hiroshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| JP 2003233186 | A | 20030822 | JP 2002-32806 | 20020208 |

PRIORITY APPLN. INFO.: JP 2002-32806 20020208

OTHER SOURCE(S): MARPAT 139:171285

ED Entered STN: 22 Aug 2003

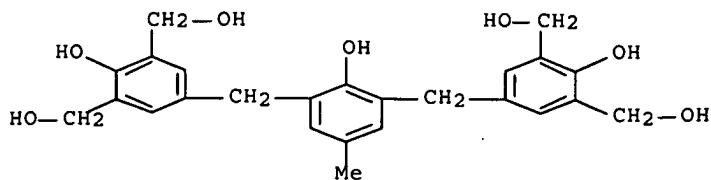
AB The neg.-working resist composition comprises (a) an alkali-soluble polymer, (b) a crosslinker which crosslinks (a) upon an interaction with an acid, (c) a photoacid generating sulfonic acid represented by Ra-SO3H (Ra = C4-30 alkyl, alkenyl, alkynyl), and (d) a photoacid generating sulfonic acid other than Ra-SO3H. The neg.-working resist composition satisfied all high sensitivity and high resolution, and a line edge roughness.

IT 197087-73-3P 197087-74-4P

(crosslinker; neg.-working resist composition containing sulfonic acid-generating photoacid)

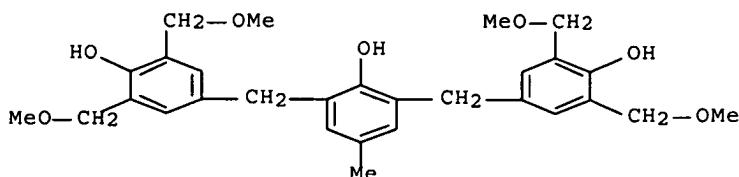
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)]bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-bis(methoxymethyl)phenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 25, 35, 38

IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P
185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P
197087-74-4P

(crosslinker; neg.-working resist composition containing sulfonic acid-generating photoacid)

L50 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:167237 HCAPLUS Full-text

DOCUMENT NUMBER: 138:212796

TITLE: Negative-working electron beam or x-ray resist compositions containing specific acid generator

INVENTOR(S): Yasunami, Shoichiro; Nishiyama, Fumiyuki; Hyakuta, Atsushi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2003066596 | A | 20030305 | JP 2001-254879 | 20010824 |
| US 20030054287 | A1 | 20030320 | US 2002-120551 | 20020412 |
| PRIORITY APPLN. INFO.: | | | JP 2001-115596 | A 20010413 |
| | | | JP 2001-169770 | A 20010605 |

OTHER SOURCE(S): MARPAT 138:212796

ED Entered STN: 05 Mar 2003

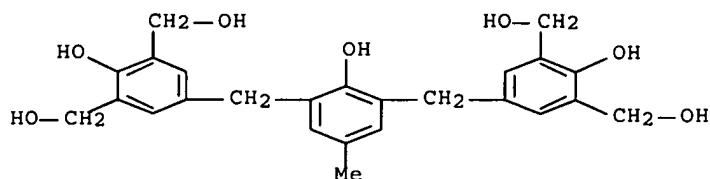
AB The title composition contains an alkali-soluble polymer, an acid-sensitive crosslinking agent, an actinic ray- or radiation-sensitive sulfonimide-based acid generator, wherein the acid generator has structure R1a-N(-SO₂-R2a)(-SO₂-R3a) (R1a-3a = alkyl, cycloalkyl, aryl, aralkyl, etc.). The composition shows the high sensitivity and provides the resist showing high resolution, good pattern profile, and the improved pattern line edge roughness.

IT 197087-73-3P 197087-74-4P

(crosslinking agent; neg.-working electron beam or x-ray resists compns.)

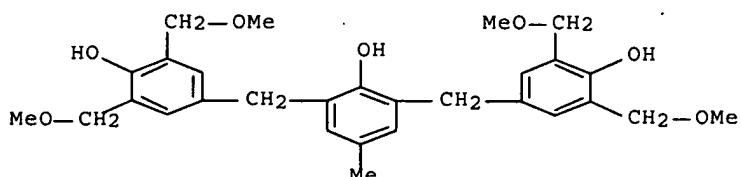
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-bis(methoxymethyl)phenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-004

ICS C08F012-22; G03F007-038; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 161679-94-3P 161679-95-4P 161679-98-7P 185502-11-8P
185502-14-1P 185502-15-2P 197087-73-3P

197087-74-4P

(crosslinking agent; neg.-working electron beam or x-ray resists compns.)

L50 ANSWER 10 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:959022 HCPLUS Full-text

DOCUMENT NUMBER: 138:47307

TITLE: Negative-working resist composition containing quaternary ammonium compound

INVENTOR(S): Yasunami, Shoichiro; Takahashi, Omote
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2002365802 | A | 20021218 | JP 2001-174294 | 20010608 |
| PRIORITY APPLN. INFO.: | | | JP 2001-174294 | 20010608 |

OTHER SOURCE(S): MARPAT 138:47307

ED Entered STN: 18 Dec 2002

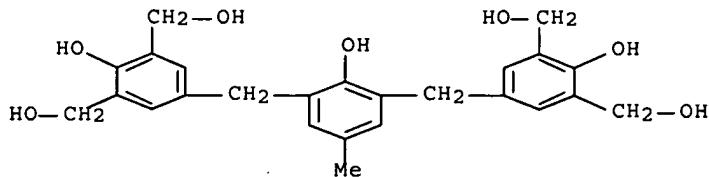
AB The neg.-working resist composition comprises (a) a photoacid, (b) an alkali-soluble polymer, (c) a crosslinker for crosslinking the polymer upon the interaction with the photoacid, and (d) a compound R1aR2aR3aN+-L1a-COO- (R1a-R3a = alkyl, cycloalkyl, alkenyl, etc.; L1a = alkylene). The composition further contains a N-containing basic compound. The resist composition is used for an excimer laser having a wavelength 150-250 nm, an electron beam, and an x-ray.

IT 197087-73-3P 197087-74-4P

(crosslinker; neg.-working resist composition containing quaternary ammonium compound)

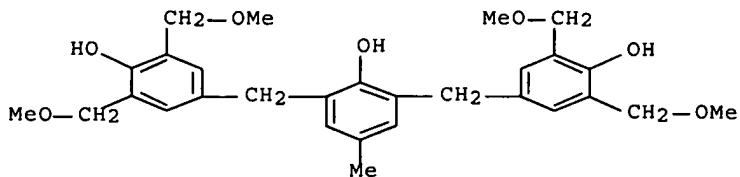
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-bis(methoxymethyl)phenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P
 185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P
 197087-74-4P
 (crosslinker; neg.-working resist composition containing quaternary ammonium compound)

L50 ANSWER 11 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:737649 HCPLUS Full-text
 DOCUMENT NUMBER: 137:377352
 TITLE: Application of lignophenol to positive-type photoresists
 AUTHOR(S): Kadota, Joji; Hasegawa, Kiichi; Funaoka, Masamitsu; Uchida, Toshikazu; Kitajima, Kouichirou
 CORPORATE SOURCE: Plastics Department, Osaka Municipal Technical Research Institute, Osaka, 536-8553, Japan
 SOURCE: Nettowaku Porima (2002), 23(3), 142-149
 PUBLISHER: Gosei Jushi Kogyo Kyokai
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese

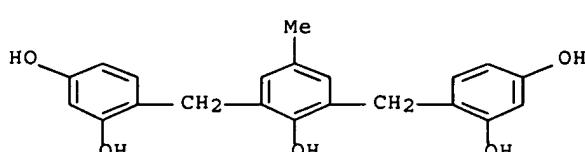
ED Entered STN: 30 Sep 2002

AB Recently, lignophenols have been obtained from lignin in wood-sources [Hinoki (Japanese cypress), beech, etc.], and now, the establishment of their use as industrial materials is required. We tried to apply them to pos.-type photoresists for printing and printed wiring boards, because they have the advantages of (1) good solubility in alkaline water, (2) sensitivity to UV irradiation and (3) resistance to heat. We used them instead of novolac resins in a novolac/diazonaphthoquinone system photoresist, resulting in giving photoresists with high sensitivity and less side etching through adding 3-nuclei novolac compds. to lignophenols.

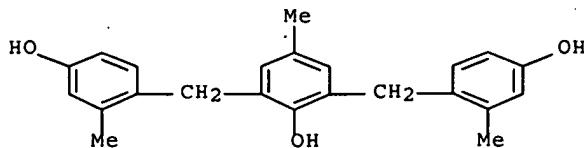
IT 93933-64-3 148398-17-8
 (lignophenols for pos.-type photoresists as substitutes of novolak resins)

RN 93933-64-3 HCPLUS

CN 1,3-Benzenediol, 4,4'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis- (CA INDEX NAME)



RN 148398-17-8 HCPLUS
 CN Phenol, 2,6-bis[(4-hydroxy-2-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 43, 76

IT 1319-77-3, Cresol 9005-53-2, Lignin, uses 53208-22-3D,
Diazonaphthoquinone, derivs. 93933-64-3 148398-17-8
475471-82-0, PS 105

(lignophenols for pos.-type photoresists as substitutes of novolak resins)

L50 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:364224 HCAPLUS Full-text

DOCUMENT NUMBER: 136:393265

TITLE: Chemically-amplified negative-working resist compositions containing radical generators

INVENTOR(S): Adegawa, Yutaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2002139836 | A | 20020517 | JP 2000-336334 | 20001102 |
| PRIORITY APPLN. INFO.: | | | JP 2000-336334 | 20001102 |

ED Entered STN: 16 May 2002

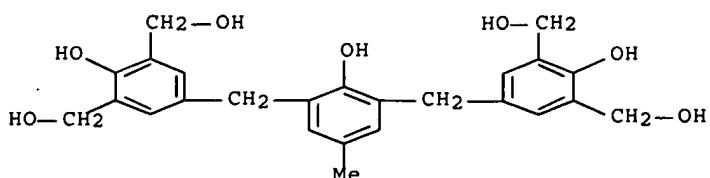
AB The compns., which show high sensitivity, high resolution, rectangular pattern profile, and PCD (post coating delay) and PED (post exposure delay) stability, contain (a) compds. which directly or indirectly generate radicals upon irradiation with energy ray. The compns. may contain (b) compds. which generate acids upon irradiation with energy ray, (c) alkali-soluble resins, and (d) crosslinking agents reacting by acids.

IT 197087-73-3P 197087-74-4P

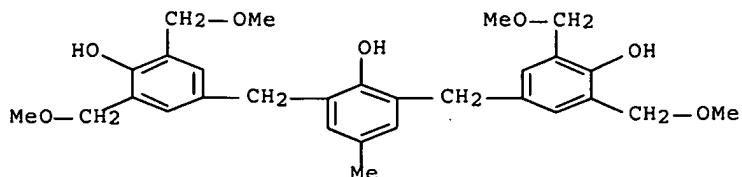
(crosslinking agent; chemical-amplified neg.-working resist compns.
containing compds. which generate radicals upon irradiation)

RN 197087-73-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)]bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS
 CN Phenol, 2,6-bis[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038
 ICS C08K005-00; C08L101-00; G03F007-004; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P
 185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P
 197087-74-4P
 (crosslinking agent; chemical-amplified neg.-working resist compns. containing compds. which generate radicals upon irradiation)

L50 ANSWER 13 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:47839 HCPLUS Full-text
 DOCUMENT NUMBER: 136:126534
 TITLE: Electron beam- or x-ray negative-working resist compositions for fine processing of semiconductor devices
 INVENTOR(S): Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| JP 2002014470 | A | 20020118 | JP 2000-194756 | 20000628 |
| PRIORITY APPLN. INFO.: | | | JP 2000-194756 | 20000628 |

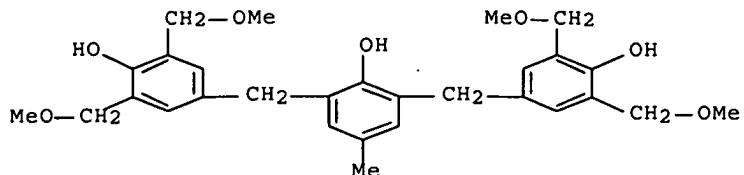
ED Entered STN: 18 Jan 2002
 AB The compns. comprise (A) acid- and/or radical species-generating compds. by radiation of electron beam or x ray, (B) water-insol. and alkali aqueous solution-soluble polymers having ≥ 1 unsatd. bonds polymerizable by acids and/or radicals, (C) agents crosslinking with B by acids, and (D) solvents containing (a) 40-90% of ≥ 1 solvents selected from propylene glycol monomethyl ether acetate, propylene glycol monomethyl ether propionate, Me 3-methoxypropionate, Et 3-methoxypropionate, Me 3-ethoxypropionate, and Et 3-ethoxypropionate and (b) 10-60% of ≥ 1 solvents selected from propylene glycol monomethyl ether, propylene glycol monoethyl ether, Me lactate, Et lactate,

and diacetone alc. The compns. show high sensitivity and resolution, good coatability, and decreased development defects and give rectangular profiles.

IT 197087-74-4P
 (crosslinking agents; electron-beam or x-ray neg. photoresists containing solvent mixts. for fine processing of semiconductors)

RN 197087-74-4 HCAPLUS

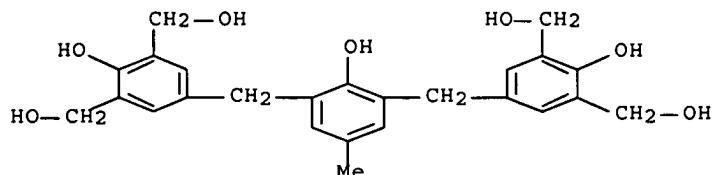
CN Phenol, 2,6-bis[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IT 197087-73-3
 (reactants in preparation of crosslinking agents; electron-beam or x-ray neg. photoresists containing solvent mixts. for fine processing of semiconductors)

RN 197087-73-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



IC ICM G03F007-038
 ICS C08F290-12; C08K005-00; C08K005-13; C08L025-18; G03F007-004;
 G03F007-027; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 76

IT 161679-94-3P 162846-57-3P 185502-15-2P 197087-74-4P
 (crosslinking agents; electron-beam or x-ray neg. photoresists containing solvent mixts. for fine processing of semiconductors)

IT 110726-28-8, Trisp PA 161679-95-4 161679-98-7 185502-11-8
 197087-73-3
 (reactants in preparation of crosslinking agents; electron-beam or x-ray neg. photoresists containing solvent mixts. for fine processing of semiconductors)

L50 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:524739 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:114444
 TITLE: Electron beam or x-ray negative-working resist composition

INVENTOR(S): Aoai, Toshiaki; Adegawa, Yutaka; Yagihara, Morio
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 85 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|------------------|------------|
| EP 1117004 | A2 | 20010718 | EP 2001-100113 | 20010112 |
| EP 1117004 | A3 | 20030813 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| TW 289238 | B | 20071101 | TW 2001-90100434 | 20010109 |
| JP 2001337452 | A | 20011207 | JP 2001-5374 | 20010112 |
| US 6824948 | B1 | 20041130 | US 2001-759362 | 20010116 |
| PRIORITY APPLN. INFO.: | | | JP 2000-4766 | A 20000113 |
| | | | JP 2000-84469 | A 20000324 |

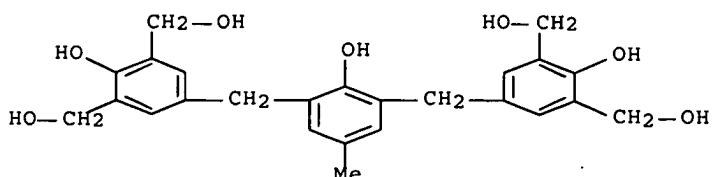
ED Entered STN: 20 Jul 2001

AB The invention relates to a neg.-working resist composition useful for super microlithog. such as VLSI and high-capacity microchips and to a composition capable of forming microfine patterns using X-rays and an electron beam, and to a composition suitable for working of semiconductor devices using an electron beam. A neg.-working resist composition for electron beams or x-rays comprises (a) a compound generating an acid and/or radical species by the irradiation of electron beams or x-rays, (b) a resin which is insol. in H₂O and soluble in an alkali aqueous solution, (c) a crosslinking agent causing crosslinking with the resin of component (b) by the action of an acid, and (d) a compound having ≥1 unsatd. bond capable of being polymerized by an acid and/or a radical, and a neg.-working resist composition for electron beams or x-rays comprising (a) a compound generating an acid and/or radical species by the irradiation of electron beams or x-rays, (b') a resin having ≥1 unsatd. bond polymerizable by an acid and/or an alkali, which is insol. in H₂O but soluble in an alkali aqueous solution, and (c) a crosslinking agent causing crosslinking with the resin (b') by the action of an acid are disclosed.

IT 197087-73-3P 197087-74-4P
 (synthesis of acid crosslinking agent for neg.-working photoresist composition for X-ray or electron beam lithog.)

RN 197087-73-3 HCPLUS

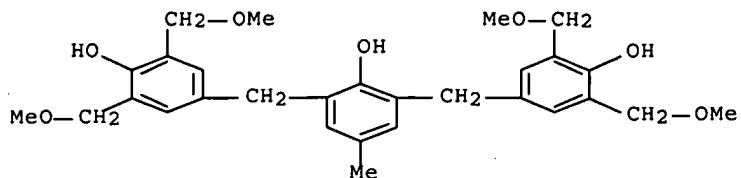
CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-

methyl- (CA INDEX NAME)

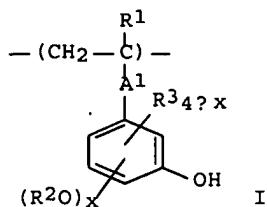


IC ICM G03F007-038
 ICS G03F007-004; G03F007-028
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 Section cross-reference(s): 35, 36, 76
 IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P
 185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P
 197087-74-4P
 (synthesis of acid crosslinking agent for neg.-working photoresist
 composition for X-ray or electron beam lithog.)

L50 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:524737 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:114443
 TITLE: Negative-working resist composition
 INVENTOR(S): Uenishi, Kazuya; Adegawa, Yutaka; Shirakawa, Koji
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 87 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|------------------|------------|
| EP 1117002 | A1 | 20010718 | EP 2001-100188 | 20010117 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002049151 | A | 20020215 | JP 2000-235949 | 20000803 |
| JP 4070393 | B2 | 20080402 | | |
| TW 581934 | B | 20040401 | TW 2001-90100839 | 20010115 |
| US 6673512 | B1 | 20040106 | US 2001-760806 | 20010117 |
| PRIORITY APPLN. INFO.: | | | JP 2000-8229 | A 20000117 |
| | | | JP 2000-151477 | A 20000523 |
| | | | JP 2000-235949 | A 20000803 |

OTHER SOURCE(S): MARPAT 135:114443
 ED Entered STN: 20 Jul 2001
 GI

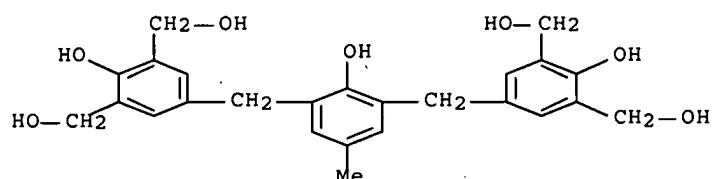


AB The invention relates to a neg.-working composition useful in ultramicro-lithog. or other photofabrication for production of VLSI or high-capacity microchips and to a neg.-working photoresists that can provide micropatterns using X-ray or electron beam, and that can be used in miniaturization processing of semiconductor devices using electron beams. The chemical amplification system neg.-working resist composition for an electron beam and/or an x-ray, has excellent in sensitivity and resolution and has a rectangular profile, comprising an alkali-soluble resin having structural units represented by (I), a compound generating an acid by irradiation of the electron beam or the x-ray, and a crosslinking agent which initiates crosslinking by the acid.

IT 197087-73-3P 197087-74-4P
(synthesis of acid crosslinking agent for neg.-working photoresist composition for X-ray or electron beam lithog.)

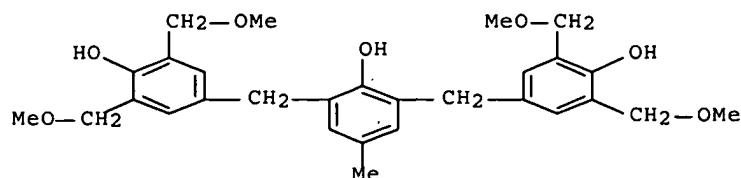
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-038

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic

and Other Reprographic Processes)

Section cross-reference(s): 35, 36, 76

IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P
185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P
197087-74-4P

(synthesis of acid crosslinking agent for neg.-working photoresist composition for X-ray or electron beam lithog.)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 16 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:469374 HCPLUS Full-text

DOCUMENT NUMBER: 135:84296

TITLE: Radiation-sensitive chemically amplified negative-working resist compositions containing vinylbenzodioxole derivatives polymers

INVENTOR(S): Adekawa, Yutaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|-------|----------|------------------|------------|
| ----- | ----- | ----- | ----- | ----- |
| JP 2001174994 | A | 20010629 | JP 1999-358016 | 19991216 |
| TW 525040 | B | 20030321 | TW 2000-89126981 | 20001216 |
| PRIORITY APPLN. INFO.: | | | JP 1999-358016 | A 19991216 |
| | | | JP 2000-49639 | A 20000225 |

OTHER SOURCE(S): MARPAT 135:84296

ED Entered STN: 29 Jun 2001

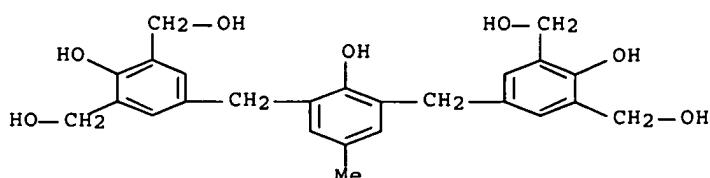
AB The resist compns. contain (A) alkaline-soluble resins involving structure units of 4-vinyl-1,3-benzodioxole derivs., compds. which generate acids by electron beam or x-ray irradiation, acid-crosslinkable crosslinking agents, and optionally F- and/or silicone-based surfactants. The compns. satisfy properties of sensitivity, developability, and resist pattern profiles to the use of electron beam or x-ray.

IT 197087-73-3 197087-74-4

(crosslinking agent; radiation-sensitive chemical amplified neg.-working resist compns. containing vinylbenzodioxole derivs. polymers)

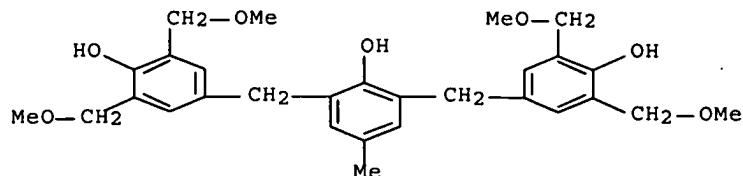
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCAPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS C08F002-54; C08K005-00; C08L025-18; G03F007-004; G03F007-033; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 3089-11-0 32449-09-5 161679-98-7 185502-11-8 185502-14-1

197087-73-3 197087-74-4 346694-57-3 346694-58-4
(crosslinking agent; radiation-sensitive chemical amplified neg.-working resist compns. containing vinylbenzodioxole derivs. polymers)

L50 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:209949 HCAPLUS Full-text

DOCUMENT NUMBER: 130:289224

TITLE: Negative-working image-recording material useful as lithographic plate material

INVENTOR(S): Oshima, Yasuhito; Kobayashi, Fumikazu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

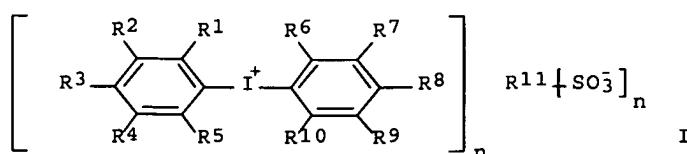
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 11084654 | A | 19990326 | JP 1997-235819 | 19970901 |
| PRIORITY APPLN. INFO.: | | | JP 1997-235819 | 19970901 |

OTHER SOURCE(S): MARPAT 130:289224

ED Entered STN: 02 Apr 1999

GI



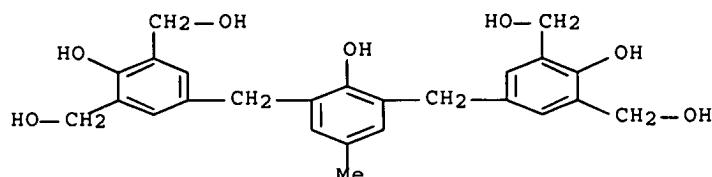
AB The title material comprise (a) an iodonium sulfonate having ≥ 1 NO₂ group I [R₁₋₁₀ = H, NO₂, halo, CN, OH, CO₂H, (substituted) alkoxy, NR₁₂R₁₃, NR₁₂COR₁₃, COR₁₂, CO₂R₁₂, CONR₁₂R₁₃, SO₂R₁₂, SO₃R₁₂, OCOR₁₂, OSO₂R₁₂, SiR₁₂R₁₃R₁₄ {R₁₂₋₁₄ = H or (substituted) hydrocarbon}, (substituted) hydrocarbon, ≥ 1 of R₁₋₁₀ is NO₂; R₁₁ = (substituted) n-valent hydrocarbon; n = pos. integer], (b) an alkali-soluble group-containing polymer, (c) and an acid-crosslinking compound, (d) an IR absorbent. The material is capable of direct platemaking from digital data by using IR ray solid lasers and semiconductor lasers and shows high photosensitivity, storage stability, and latitude in post exposure baking conditions.

IT 197087-73-3 197087-74-4

(crosslinking agent; neg.-working photosensitive composition containing iodonium sulfonate with nitro group as acid generator)

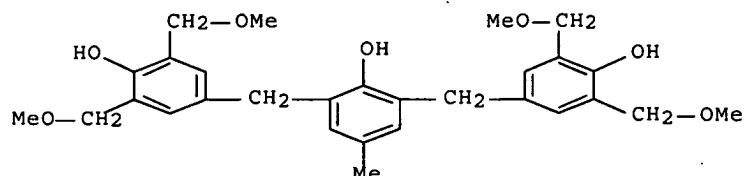
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IT 9003-35-4, Formaldehyde-phenol copolymer

(neg.-working photosensitive composition containing iodonium sulfonate with nitro group as acid generator)

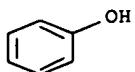
RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C₆ H₆ O



CM 2

CRN 50-00-0
CMF C H₂ O $\text{H}_2\text{C}=\text{O}$

IC ICM G03F007-038
 ICS B41N001-14; G03F007-00; G03F007-004; G03F007-023
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 IT 197087-73-3 197087-74-4
 (crosslinking agent; neg.-working photosensitive composition containing
 iodonium sulfonate with nitro group as acid generator)
 IT 9003-35-4, Formaldehyde-phenol copolymer 24979-70-2,
 Poly(p-hydroxystyrene) 90216-38-9, Allyl methacrylate-methacrylic
 acid copolymer 222416-98-0 222417-00-7 222417-01-8 222417-02-9
 222417-03-0 222417-04-1 222417-05-2 222417-06-3 222417-07-4
 222417-09-6 222417-11-0 222417-12-1 222417-14-3
 (neg.-working photosensitive composition containing iodonium sulfonate with
 nitro group as acid generator)

L50 ANSWER 18 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:770155 HCPLUS Full-text
 DOCUMENT NUMBER: 130:146034
 TITLE: Effect of end-group on novolak resin properties
 AUTHOR(S): Zampini, Anthony; Monaghan, Michael; Xu,
 Cheng-Bai; Cardin, William
 CORPORATE SOURCE: Shipley Company, Marlborough, MA, 01752, USA
 SOURCE: Proceedings of SPIE-The International Society for
 Optical Engineering (1998), 3333(Pt. 2, Advances
 in Resist Technology and Processing XV), 1241-1250
 CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical
 Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 09 Dec 1998

AB Model compds. formed by the reaction of m-cresol with 2,6-bis(hydroxymethyl)-p-cresol, DMPC, were isolated and characterized by ¹³C NMR. DMPC was found to couple at the 2, 4, and 6-positions of m-cresol at a rate of 12%, 34% and 54% resp. The condensation reactions of m-cresol and DMPC with 2-hydroxy-3,5-dimethylbenzyl alc., 2-HDBA, or 4-hydroxy-3,5-dimethylbenzyl alc., 4-HDBA, were determined by ¹³C NMR to form novolak resins in a manner predicted by model compound data. The introduction of 2,4-dimethylphenol and 2,6-dimethylphenol as specific end-groups to novolak resins was demonstrated to affect both the resin dissoln. and photoresist properties. Novolaks end-capped with the more highly o-o' coupled 2,4-dimethylphenol group have lower

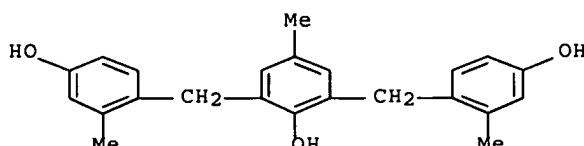
dissoln. rates while the more p-p' coupled, intermol. oriented, 2,6-dimethylphenol group show higher dissoln. rates in TMAH. For the resins investigated, photoresist resolution properties appear to be dictated by the bulk resin structure. Photospeed, however, was greatly enhanced by the 2,6-dimethylphenol end-group. This knowledge was then applied towards the design of novolak resins having built-in dissoln. and photospeed promoters, and a novolak/diazonaphthoquinone 0.25 μ m capable i-line photoresist.

IT 148398-17-8P

(effect of end-group on novolak resin properties)

RN 148398-17-8 HCAPLUS

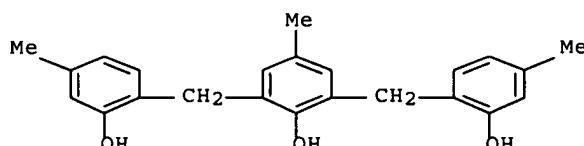
CN Phenol, 2,6-bis[(4-hydroxy-2-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)

IT 137914-04-6P 145612-73-3P 145612-74-4P
220061-37-0P 220061-38-1P

(in preparation of model compds. for investigating effect of end-group on novolak resin properties)

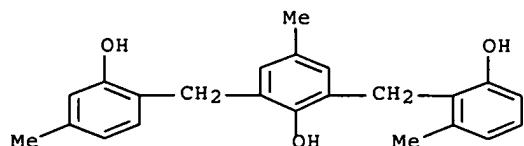
RN 137914-04-6 HCAPLUS

CN Phenol, 2,6-bis[(2-hydroxy-4-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



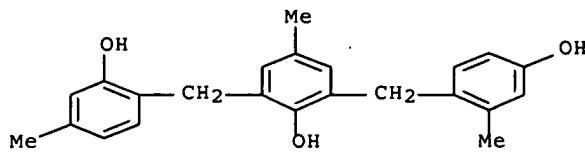
RN 145612-73-3 HCAPLUS

CN Phenol, 2-[(2-hydroxy-4-methylphenyl)methyl]-6-[(2-hydroxy-6-methylphenyl)methyl]-4-methyl- (9CI) (CA INDEX NAME)



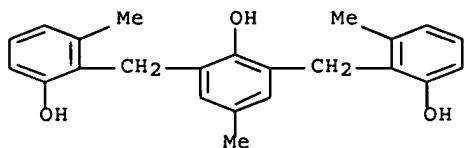
RN 145612-74-4 HCAPLUS

CN Phenol, 2-[(2-hydroxy-4-methylphenyl)methyl]-6-[(4-hydroxy-2-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



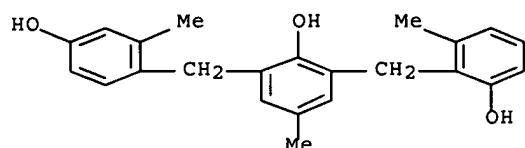
RN 220061-37-0 HCAPLUS

CN Phenol, 2,6-bis[(2-hydroxy-6-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



RN 220061-38-1 HCAPLUS

CN Phenol, 2-[(2-hydroxy-6-methylphenyl)methyl]-6-[(4-hydroxy-2-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 36

IT 130425-63-7DP, dimethylphenol terminated 130425-63-7P
148398-17-8P

(effect of end-group on novolak resin properties)

IT 137914-04-6P 145612-73-3P 145612-74-4P
220061-37-0P 220061-38-1P
(in preparation of model compds. for investigating effect of end-group on novolak resin properties)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:76151 HCAPLUS Full-text

DOCUMENT NUMBER: 128:186524

ORIGINAL REFERENCE NO.: 128:36739a,36742a

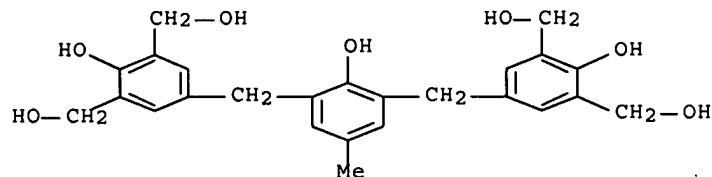
TITLE: Negative-working lithographic printing plate with improved printing durability

INVENTOR(S): Aoshima, Katsataro

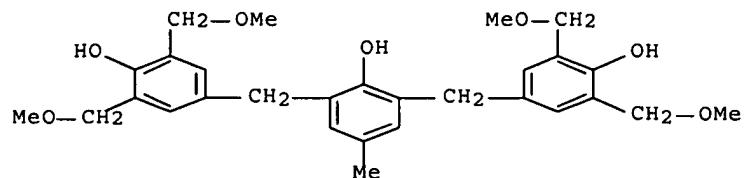
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10029292 | A | 19980203 | JP 1996-187940 | 19960717 |
| JP 3816152 | B2 | 20060830 | | |
| PRIORITY APPLN. INFO.: | | | JP 1996-187940 | 19960717 |

ED Entered STN: 09 Feb 1998
 AB The material comprises ≥ 1 (meth)acrylate polymer having hydroxyaryl in a side chain, a crosslinking agent crosslinkable with an acid, an acid-generating compound by light or heat, and an IR absorbing agent. The plate is useful for neg.-type lithog. direct printing by solid-state or semiconductor laser exposure.
 IT 197087-73-3 197087-74-4
 (crosslinking agents; neg.-working lithog. printing plate with improved printing durability)
 RN 197087-73-3 HCPLUS
 CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS
 CN Phenol, 2,6-bis[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM B41C001-055
 ICS G03F007-00; G03F007-033
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 531-18-0, Hexamethylolemelamine 185502-11-8 197087-73-3

197087-74-4

(crosslinking agents; neg.-working lithog. printing plate with improved printing durability)

L50 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:55934 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:174175
 ORIGINAL REFERENCE NO.: 128:34205a,34208a
 TITLE: Negative-working IR-sensitive image recording material for lithographic printing plate
 INVENTOR(S): Aoshima, Keitaro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10016423 | A | 19980120 | JP 1996-171307 | 19960701 |
| JP 3636827 | B2 | 20050406 | | |
| PRIORITY APPLN. INFO.: | | | JP 1996-171307 | 19960701 |

ED Entered STN: 30 Jan 1998

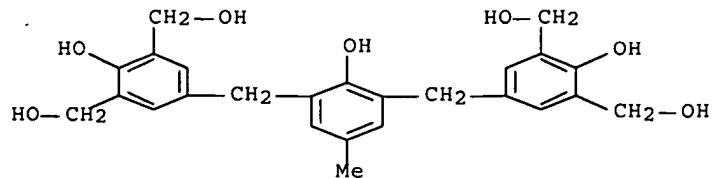
AB The recording material comprises (A) ≥1 polymer having hydroxyaryl groups in side chains, (B) a thermal crosslinking agent, (C) an acid generator, and (D) an IR absorber. Preferably, the crosslinking agent is a phenol derivative having hydroxymethyl or alkoxyethyl connecting to ≥2 benzene rings, and the acid generator decomp. at ≥100°, and the IR absorber absorbs light at 720-1200 nm. The recording material is useful for direct platemaking by using IR laser. The recording material shows high film strength and printability.

IT 197087-73-3P 197087-74-4P

(crosslinking agent; neg.-working IR-sensitive image recording material for lithog. printing plate with high printability)

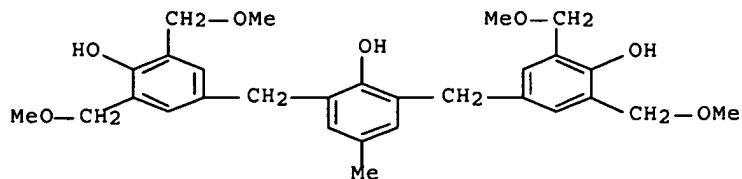
RN 197087-73-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCAPLUS

CN Phenol, 2,6-bis[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM B41N001-14
 ICS B41C001-055; G03F007-00; G03F007-004; G03F007-038
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 Section cross-reference(s): 25, 38
 IT 161679-94-3P 161679-95-4P 161679-98-7P 185502-11-8P
 185502-14-1P 185502-15-2P 197087-73-3P
 197087-74-4P
 (crosslinking agent; neg.-working IR-sensitive image recording
 material for lithog. printing plate with high printability)

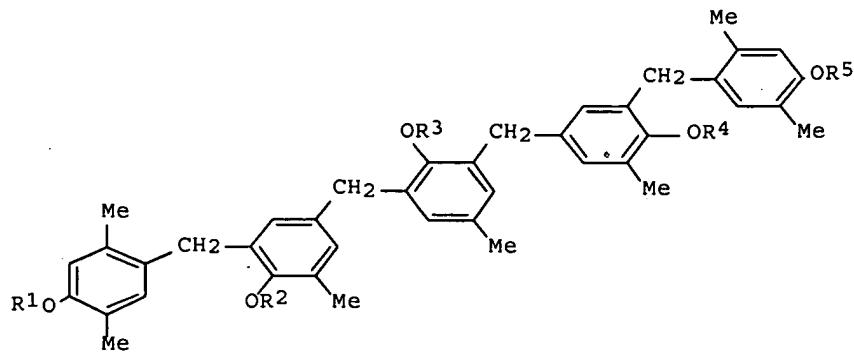
L50 ANSWER 21 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1997:732327 HCPLUS Full-text
 DOCUMENT NUMBER: 128:13137
 ORIGINAL REFERENCE NO.: 128:2549a,2552a
 TITLE: Preparation of pentaphenols, photosensitizers, and
 photoresist compositions
 INVENTOR(S): Inoue, Hirotaka; Ozaki, Haruki
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 09291056 | A | 19971111 | JP 1996-102487 | 19960424 |
| JP 3921702 | B2 | 20070530 | | |
| PRIORITY APPLN. INFO.: | | | JP 1996-102487 | 19960424 |

OTHER SOURCE(S): MARPAT 128:13137

ED Entered STN: 20 Nov 1997

GI

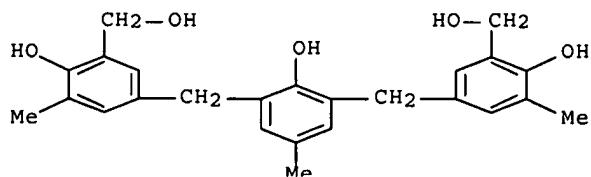


AB Pentaphenols I (R1-R5 = H, 1,2-naphthoquinonediazido-4- or -5-sulfonyl) are prepared as (precursors for) sensitizers for photoresist compns. containing alkali-soluble novolak resins. 2,6-Bis(4-hydroxy-3-hydroxymethyl-5-methylbenzyl)-4-methylphenol (40.8 parts, preparation given) was treated with 97.8 parts 2,5-xylenol in MeOH in the presence of p-MeC₆H₄SO₃H at 40° for 3 h to give 25.3 parts I (R1-R5 = H), 6.2 parts of which was treated with 5.4 parts 1,2-naphthoquinonediazido-5-sulfonyl chloride in 1,4-dioxane in the presence of NEt₃ at 25° for 3 h to give 10.6 parts sensitizer. A resist solution was prepared using the sensitizer to show good sensitivity, resolution, and profile, high γ value, and no scum.

IT 170446-63-6P
(in preparation of pentaphenols as photosensitizers for photoresist compns.)

RN 170446-63-6 HCPLUS

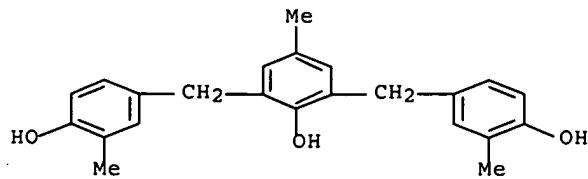
CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[6-hydroxy-5-methyl- (9CI) (CA INDEX NAME)



IT 115052-64-7, 2,6-Bis(4-hydroxy-3-methylbenzyl)-4-methylphenol
(in preparation of pentaphenols as photosensitizers for photoresist compns.)

RN 115052-64-7 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM C07C039-15
 ICS C07C309-76; G03F007-022; C07C303-28
 CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 74
 IT 170446-63-6P
 (in preparation of pentaphenols as photosensitizers for photoresist compns.)
 IT 95-87-4, 2,5-Xylenol 115052-64-7, 2,6-Bis(4-hydroxy-3-methylbenzyl)-4-methylphenol
 (in preparation of pentaphenols as photosensitizers for photoresist compns.)

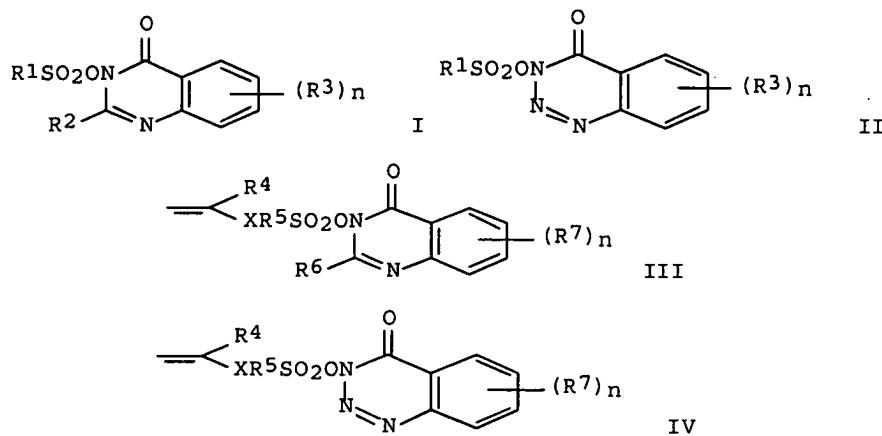
L50 ANSWER 22 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1997:632451 HCPLUS Full-text
 DOCUMENT NUMBER: 127:313151
 ORIGINAL REFERENCE NO.: 127:61145a,61148a
 TITLE: Negative image recording material for planographic printing plate preparation
 INVENTOR(S): Aoshima, Keitaro; Kitatani, Katsuji; Kobayashi, Fumikazu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 50 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| EP 795789 | A1 | 19970917 | EP 1997-103663 | 19970305 |
| EP 795789 | B1 | 20000209 | | |
| R: DE, GB | | | | |
| JP 09239945 | A | 19970916 | JP 1996-53035 | 19960311 |
| JP 10080994 | A | 19980331 | JP 1997-33760 | 19970218 |
| PRIORITY APPLN. INFO.: | | | JP 1996-53035 | A 19960311 |
| | | | JP 1996-187943 | A 19960717 |

OTHER SOURCE(S): MARPAT 127:313151

ED Entered STN: 04 Oct 1997

GI



AB A neg. image recording material for planog. printing plate preparation comprises (A) at least one of compds. represented by the formulas I or II (R1, R2 = a hydrocarbon group having not more than 20 carbon atoms; R3 = a halogen atom or a hydrocarbon group having not more than 10 carbon atoms; n = an integer of 0-4) or at least one of polymers obtained by radical polymerization using at least one of monomers represented by the formulas III or IV (R4 = H or a hydrocarbon group having not more than 20 carbon atoms; R5 = a single bond or a divalent hydrocarbon group having not more than 20 carbon atoms; R6 = a hydrocarbon group having not more than 20 carbon atoms; R7 = a halogen atom or a hydrocarbon group having not more than 10 carbon atoms), (B) at least one crosslinking agent, (C) at least one IR-absorbing agent, and (D) at least one novolak resin.

IT 9003-35-4

(planog. printing plate preparation using neg. photoimaging compns. containing)

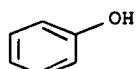
RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0

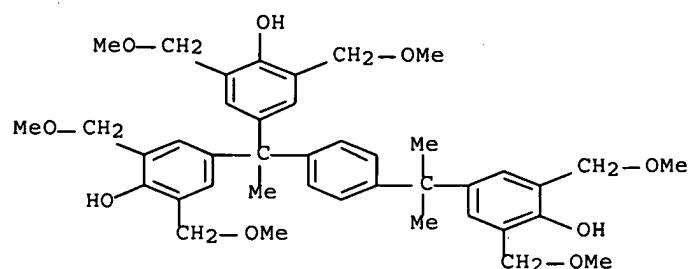
CMF C H2 O

$\text{H}_2\text{C}=\text{O}$

IT 161679-94-3P 161679-95-4P 162846-57-3P
 185502-11-8P 185502-15-2P 197087-71-1P
 197087-72-2P 197087-73-3P 197087-74-4P
 (preparation and use in photoimaging compns. for planog.
 printing plate preparation)

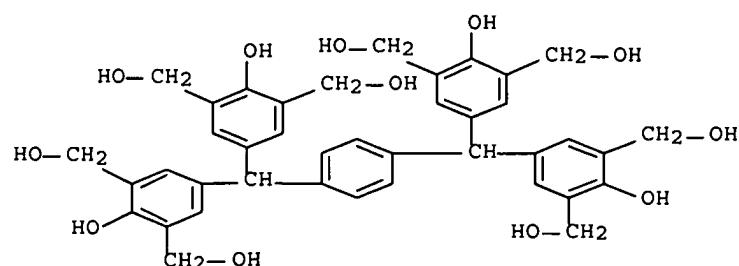
RN 161679-94-3 HCAPLUS

CN Phenol, 4,4'-(1-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl)ethylidene]bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



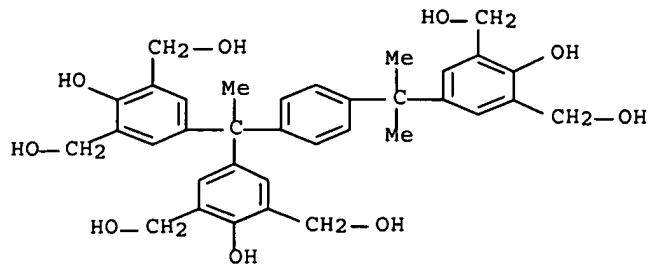
RN 161679-95-4 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5',5'',5'''-(1,4-phenylenedimethylidyne)tetraakis[2-hydroxy- (9CI) (CA INDEX NAME)



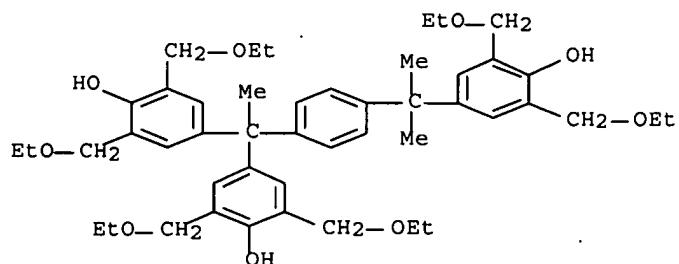
RN 162846-57-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(1-[4-[1-[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene]bis[2-hydroxy- (CA INDEX NAME)



RN 185502-11-8 HCAPLUS

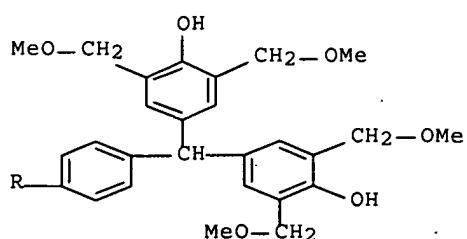
CN Phenol, 4,4'-(1-[4-[1-[3,5-bis(ethoxymethyl)-4-hydroxyphenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(ethoxymethyl)- (9CI) (CA INDEX NAME)

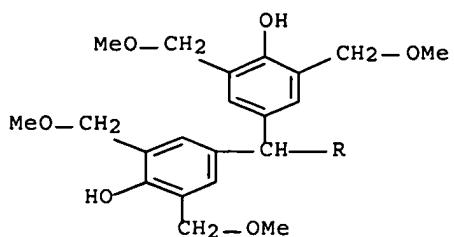


RN 185502-15-2 HCAPLUS

CN Phenol, 4,4',4'',4'''-(1,4-phenylenedimethylidyne)tetrakis[2,6-bis(methoxymethyl)- (9CI) (CA INDEX NAME)

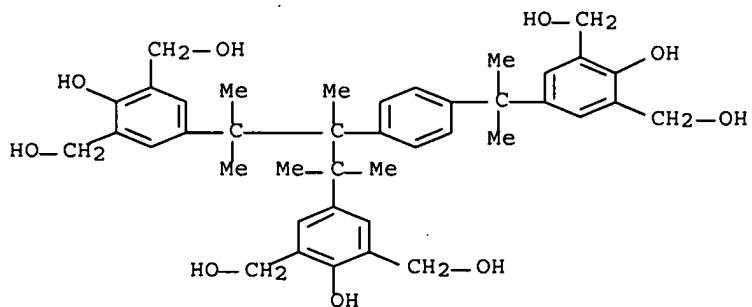
PAGE 1-A





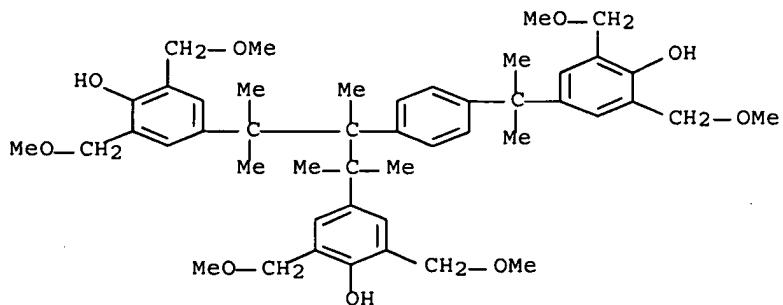
RN 197087-71-1 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-[4-[1-[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]-1-methylethyl]phenyl]-1,1,2,3,3-pentamethyl-1,3-propanediyl)bis[2-hydroxy- (9CI) (CA INDEX NAME)



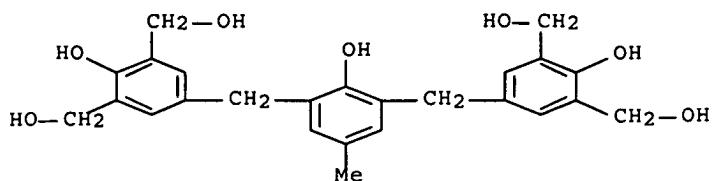
RN 197087-72-2 HCAPLUS

CN Phenol, 4,4'-(2-[4-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]-1,1,2,3,3-pentamethyl-1,3-propanediyl)bis[2,6-bis(methoxymethyl)- (9CI) (CA INDEX NAME)



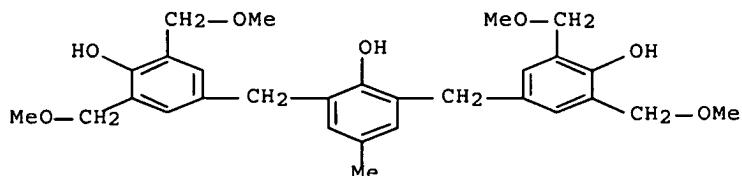
RN 197087-73-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCAPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-038

ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST neg photoimaging compn planog printing plate;
benzodiazolinone neg photoimaging compn lithog plate;
benzotriazolinone neg photoimaging compn lithog plateIT Photoimaging materials
(neg.; containing benzodiazolinone derivs. for planog. printing plate preparation)IT Phenolic resins, uses
(planog. printing plate preparation using neg. photoimaging compns. containing)IT 2390-60-5, Victoria Pure Blue BOH 9003-35-4 10409-07-1
22371-56-8, NK-3508 54769-57-2 56530-39-3 85568-56-5, Megafac F
177 91222-51-4 130558-04-2 159300-88-6 197087-69-7
(planog. printing plate preparation using neg. photoimaging compns. containing)IT 161679-94-3P 161679-95-4P 162846-57-3P
185502-11-8P 185502-15-2P 194536-20-4P
197087-71-1P 197087-72-2P 197087-73-3P
197087-74-4P
(preparation and use in photoimaging compns. for planog. printing plate preparation)IT 110726-28-8, 1-[α -Methyl- α -(4-hydroxyphenyl)ethyl]-4-[α , α -bis(4-hydroxyphenyl)ethyl]benzene
(reaction in preparing phenol derivs. for photosensitive compns. for planog. printing plate preparation)

L50 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:618534 HCAPLUS Full-text

DOCUMENT NUMBER: 127:313157

ORIGINAL REFERENCE NO.: 127:61149a,61152a
 TITLE: Negative-working image-forming material for presensitized lithographic plate
 INVENTOR(S): Aoshima, Keitaro; Kitaya, Katsushi; Kobayashi, Fumikazu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 09239945 | A | 19970916 | JP 1996-53035 | 19960311 |
| EP 795789 | A1 | 19970917 | EP 1997-103663 | 19970305 |
| EP 795789 | B1 | 20000209 | | |
| R: DE, GB | | | | |
| US 6403283 | B1 | 20020611 | US 1997-811932 | 19970305 |
| PRIORITY APPLN. INFO.: | | | JP 1996-53035 | A 19960311 |
| | | | JP 1996-187943 | A 19960717 |

ED Entered STN: 27 Sep 1997
 GI

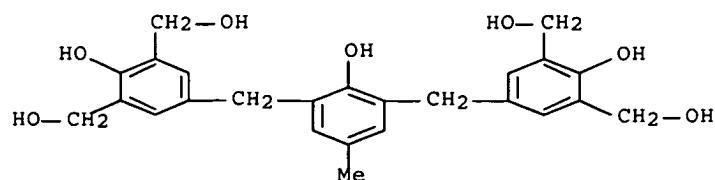
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The material contains (A) ≥ 1 of I, II, R₁SO₂ONR₄COR₅, Ar₁(SO₂)₂Ar₂, and III [R₁₋₅ = (substituted) C ≤ 20 hydrocarbon; R₃ = halo, (substituted) C ≤ 10 hydrocarbon, C ≤ 10 alkoxy; Ar₁₋₂ = (substituted) C ≤ 20 aryl; R₆ = (substituted) C ≤ 20 divalent hydrocarbon; n = 0-4], (B) a phenol derivative with mol. weight ≤ 1200 containing ≥ 2 hydroxymethyl or alkoxyethyl groups and 3-5 benzene rings, (C) an IR ray absorbing agent, and (D) ≥ 1 novolak resin. The material shows good storage stability and is useful for direct platemaking by IR digital data.

IT 197087-73-3 197087-74-4
 (presensitized lithog. plate containing sulfonyl compound and hydroxymethyl phenolic compound)

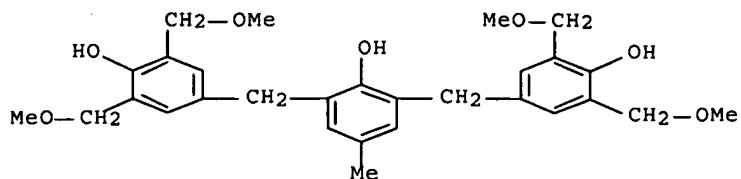
RN 197087-73-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)]bis[2-hydroxy- (CA INDEX NAME)



RN 197087-74-4 HCPLUS

CN Phenol, 2,6-bis[[4-hydroxy-3,5-bis(methoxymethyl)phenyl]methyl]-4-methyl- (CA INDEX NAME)



IC ICM B41C001-055

ICS G03F007-00; G03F007-004; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 10409-07-1 54769-57-2 56530-39-3 91222-51-4 130536-25-3
130558-04-2 159300-88-6 161679-95-4 161679-98-7 185502-11-8
185502-14-1 185502-15-2 197087-73-3 197087-74-4

(presensitized lithog. plate containing sulfonyl compound and hydroxymethyl phenolic compound)

L50 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:399936 HCAPLUS Full-text

DOCUMENT NUMBER: 127:19538

ORIGINAL REFERENCE NO.: 127:3893a,3896a

TITLE: Positive resist composition and quinone diazide photosensitizers

INVENTOR(S): Ichikawa, Koji; Osaki, Haruyoshi; Inoue, Hiroki

PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan

SOURCE: Eur. Pat. Appl., 37 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------|------|----------|-----------------|----------|
| EP 769485 | A1 | 19970423 | EP 1996-116688 | 19961017 |
| EP 769485 | B1 | 20020313 | | |
| R: DE, FR, GB, IT, NL | | | | |
| JP 09110759 | A | 19970428 | JP 1995-270297 | 19951018 |
| JP 3855285 | B2 | 20061206 | | |
| JP 09110762 | A | 19970428 | JP 1995-270305 | 19951018 |
| JP 3834852 | B2 | 20061018 | | |
| JP 09114093 | A | 19970502 | JP 1995-270294 | 19951018 |
| JP 3209058 | B2 | 20010917 | | |
| JP 09286751 | A | 19971104 | JP 1996-101224 | 19960423 |
| JP 09286752 | A | 19971104 | JP 1996-101225 | 19960423 |
| JP 3921698 | B2 | 20070530 | | |
| JP 09286753 | A | 19971104 | JP 1996-101226 | 19960423 |
| JP 3921699 | B2 | 20070530 | | |
| JP 09291054 | A | 19971111 | JP 1996-102485 | 19960424 |
| JP 3921700 | B2 | 20070530 | | |
| JP 10007610 | A | 19980113 | JP 1996-159710 | 19960620 |
| JP 3921709 | B2 | 20070530 | | |

| | | | | |
|------------------------|---|----------|----------------|------------|
| US 5866724 | A | 19990202 | US 1996-733166 | 19961017 |
| PRIORITY APPLN. INFO.: | | | JP 1995-270294 | A 19951018 |
| | | | JP 1995-270297 | A 19951018 |
| | | | JP 1995-270305 | A 19951018 |
| | | | JP 1996-101224 | A 19960423 |
| | | | JP 1996-101225 | A 19960423 |
| | | | JP 1996-101226 | A 19960423 |
| | | | JP 1996-102485 | A 19960424 |
| | | | JP 1996-159710 | A 19960620 |

OTHER SOURCE(S): MARPAT 127:19538

ED Entered STN: 28 Jun 1997

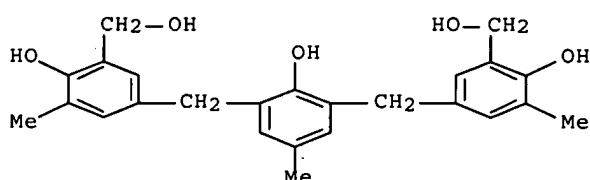
AB A high-resolution pos. photoresist composition comprises, as photosensitizer, a sulfoquinone diazide ester of a polyphenol compound having 4-6 phenol nuclei linked by (un)substituted methylene bridges and represented by a specified general formula. Thus, p-cresol was condensed 2:1 with 4,4'-methylenebis[2-(hydroxymethyl)-3,6-dimethylphenol] to give a tetraphenol, which was esterified with 5-(chlorosulfonyl)-1,2-naphthoquinone diazide to give a photosensitizer (I; degree of esterification unspecified). A cresol novolak resin solution was compounded with I and spin-coated on a Si wafer to dry thickness 1.1 μ m, irradiated in steps at 365 nm, and developed to show effective sensitivity 300 ms and resolution 0.32 μ m.

IT 170446-63-6P 189957-63-9P 190321-07-4P,
2,6-Bis(4-hydroxy-2,5-dimethylbenzyl)-3,4-dimethylphenol
190321-08-5P, 2,6-Bis[4-hydroxy-3-(hydroxymethyl)-2,5-dimethylbenzyl]-3,4-dimethylphenol 190321-11-0P
190321-12-1P

(preparation of quinone diazide photosensitizers and pos. resist compns.)

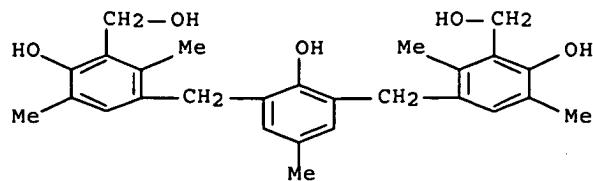
RN 170446-63-6 HCAPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[6-hydroxy-5-methyl- (9CI) (CA INDEX NAME)

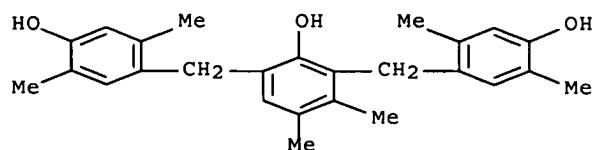


RN 189957-63-9 HCAPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[6-hydroxy-2,5-dimethyl- (9CI) (CA INDEX NAME)

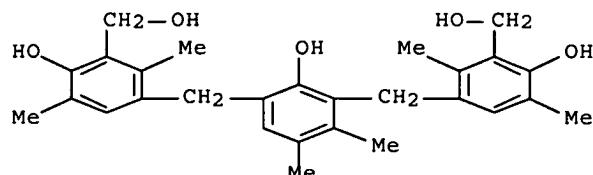


RN 190321-07-4 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-2,5-dimethylphenyl)methyl]-3,4-dimethyl-
(CA INDEX NAME)

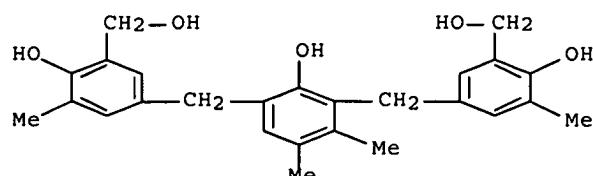
RN 190321-08-5 HCAPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-4,5-dimethyl-1,3-phenylene)bis(methylene)bis[6-hydroxy-2,5-dimethyl- (9CI) (CA INDEX NAME)



RN 190321-11-0 HCAPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-4,5-dimethyl-1,3-phenylene)bis(methylene)bis[6-hydroxy-5-methyl- (9CI) (CA INDEX NAME)

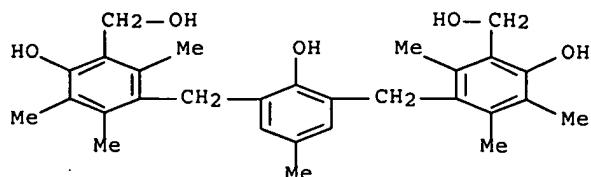


RN 190321-12-1 HCAPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-

10/562,361

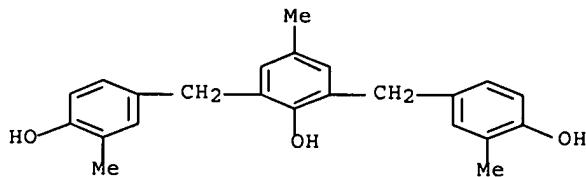
phenylene)bis(methylene)]bis[6-hydroxy-2,4,5-trimethyl- (9CI) (CA INDEX NAME)



IT 115052-64-7, 2,6-Bis(4-hydroxy-3-methylbenzyl)-4-methylphenol
148398-19-0 155643-85-9, 2,6-Bis(4-hydroxy-2,5,6-trimethylbenzyl)-4-methylphenol 169340-20-9,
2,6-Bis(4-hydroxy-3-methylbenzyl)-3,4-dimethylphenol
(preparation of quinone diazide photosensitizers and pos. resist compns.)

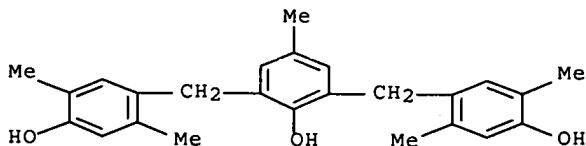
RN 115052-64-7 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



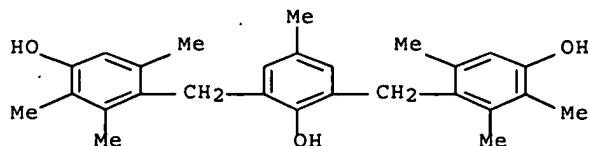
RN 148398-19-0 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-2,5-dimethylphenyl)methyl]-4-methyl- (CA INDEX NAME)



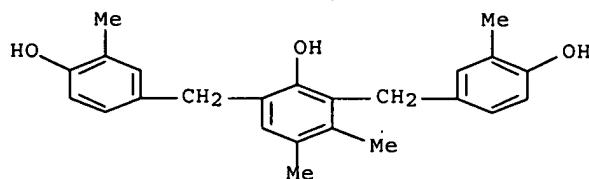
RN 155643-85-9 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-2,3,6-trimethylphenyl)methyl]-4-methyl- (CA INDEX NAME)



RN 169340-20-9 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3-methylphenyl)methyl]-3,4-dimethyl- (CA INDEX NAME)



IC ICM C07C039-15

ICS C07C309-71; C07C309-76; G03F007-022

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 25, 74, 76

IT 10496-93-2P, 4-(Hydroxymethyl)-2,5-dimethylphenol 20837-68-7P
 22247-58-1P 67730-48-7P 145668-05-9P 167687-31-2P 167687-35-6P
 170446-63-6P 182318-74-7P 189957-63-9P
 189957-68-4P 190320-83-3P 190320-84-4P 190320-85-5P
 190320-86-6P 190320-87-7P 190320-88-8P 190320-89-9P
 190320-90-2P 190320-91-3P 190320-92-4P 190320-93-5P
 190320-94-6P 190320-95-7P 190320-96-8P 190320-97-9P
 190320-98-0P 190320-99-1P 190321-00-7P 190321-01-8P
 190321-02-9P 190321-03-0P 190321-04-1P 190321-05-2P
 190321-06-3P 190321-07-4P, 2,6-Bis(4-hydroxy-2,5-dimethylbenzyl)-3,4-dimethylphenol 190321-08-5P,
 2,6-Bis[4-hydroxy-3-(hydroxymethyl)-2,5-dimethylbenzyl]-3,4-dimethylphenol 190321-09-6P 190321-10-9P 190321-11-0P
 190321-12-1P 190321-13-2P 190321-14-3P
 (preparation of quinone diazide photosensitizers and pos. resist compns.)

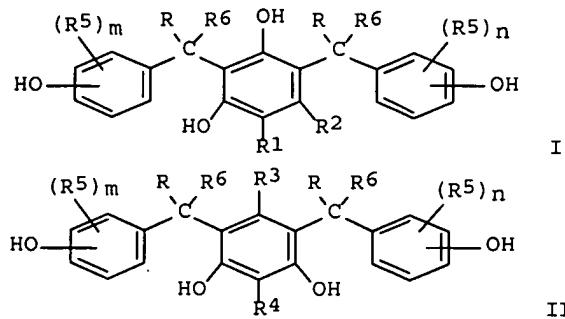
IT 50-00-0, Formaldehyde, reactions 95-48-7, o-Cresol, reactions 95-65-8, 3,4-Xylenol 95-87-4, 2,5-Xylenol 106-44-5, p-Cresol, reactions 127-54-8, 2,2-Bis(4-hydroxy-3-isopropylphenyl)propane 697-82-5, 2,3,5-Trimethylphenol 2362-14-3, 4,4'-Cyclohexylidenebis(o-cresol) 3770-97-6, 1,2-Naphthoquinonediazide-5-sulfonyl chloride 4754-63-6, Bis-OC-AP 6641-13-0 28139-72-2, Bis-OC-P 115052-64-7, 2,6-Bis(4-hydroxy-3-methylbenzyl)-4-methylphenol 148398-19-0 155643-85-9, 2,6-Bis(4-hydroxy-2,5,6-trimethylbenzyl)-4-methylphenol 156938-17-9 169340-20-9, 2,6-Bis(4-hydroxy-3-methylbenzyl)-3,4-dimethylphenol 169397-50-6, 2,4-Bis[4-hydroxy-2,5-dimethylbenzyl]-3,6-dimethylphenol 169397-52-8, 2,4-Bis[4-hydroxy-3-methylbenzyl]-3,6-dimethylphenol 185067-49-6
 (preparation of quinone diazide photosensitizers and pos. resist

compns.)

L50 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1996:641043 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:312504
 ORIGINAL REFERENCE NO.: 125:58231a,58234a
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiko; Shirakawa,
 Koji; Sakaguchi, Shinji
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 08202031 | A | 19960809 | JP 1995-7570 | 19950120 |
| PRIORITY APPLN. INFO.: | | | JP 1995-7570 | 19950120 |

OTHER SOURCE(S): MARPAT 125:312504
 ED Entered STN: 30 Oct 1996
 GI

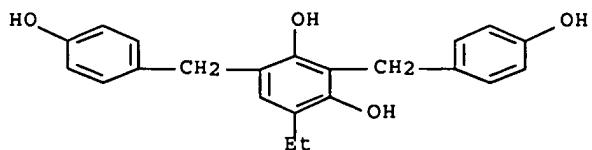


AB The composition comprises an alkali soluble resin and ≥1 1,2-naphthoquinonediazide sulfonic acid ester of polyhydric compds. I or II (R1-4 = H, halo, alkyl; R5 = H, halo, alkyl, alkoxy, acyl, cycloalkyl, aryl; R, R6 = H, alkyl; when R = R6 = H, R1 ≠ R4 ≠ H). The composition shows high sensitivity and wide development latitude.

IT 182412-02-8P 182412-04-0P 182412-05-1P
 (esterification with naphthoquinonediazidesulfonyl chloride)

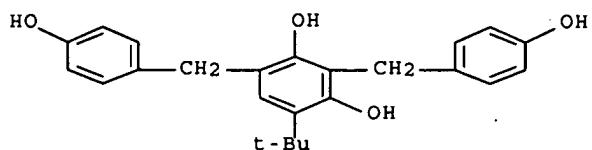
RN 182412-02-8 HCAPLUS

CN 1,3-Benzenediol, 4-ethyl-2,6-bis[(4-hydroxyphenyl)methyl]- (CA INDEX NAME)



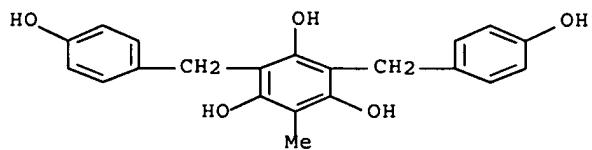
RN 182412-04-0 HCAPLUS

CN 1,3-Benzenediol, 4-(1,1-dimethylethyl)-2,6-bis[(4-hydroxyphenyl)methyl]- (CA INDEX NAME)



RN 182412-05-1 HCAPLUS

CN 1,3,5-Benzenetriol, 2,4-bis[(4-hydroxyphenyl)methyl]-6-methyl- (CA INDEX NAME)

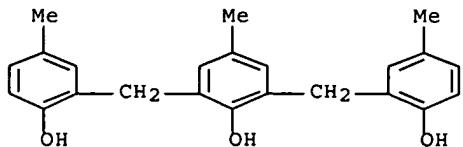


IT 1620-68-4

(photoresist composition containing polyhydric compound)

RN 1620-68-4 HCAPLUS

CN Phenol, 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-022

ICS G03F007-023; H01L021-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 37

IT 182412-02-8P 182412-04-0P 182412-05-1P
 (esterification with naphthoquinonediazidesulfonyl chloride)
 IT 603-44-1, Tris(4-hydroxyphenyl)methane 843-55-0,
 1,1-Bis(4-hydroxyphenyl)cyclohexane 1620-68-4 129348-96-5
 172683-89-5
 (photoresist composition containing polyhydric compound)

L50 ANSWER 26 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1996:494695 HCPLUS Full-text
 DOCUMENT NUMBER: 125:234415
 ORIGINAL REFERENCE NO.: 125:43567a,43570a
 TITLE: o-quinonediazidesulfonic acid ester of phenolic compound for positive photoresist
 INVENTOR(S): Blakeney, Andrew J.; Medina, Arturo N.; Toukhy, Medhat A.; Ferreira, Lawrence; Tadros, Sobhy
 PATENT ASSIGNEE(S): Ocg Microelectronic Materials, Inc., USA
 SOURCE: U.S., 23 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------------------|------|----------|-----------------|-------------|
| US 5541033 | A | 19960730 | US 1995-384501 | 19950201 |
| US 5547814 | A | 19960820 | US 1995-451599 | 19950526 |
| US 5602260 | A | 19970211 | US 1995-451939 | 19950526 |
| EP 725053 | A1 | 19960807 | EP 1996-300364 | 19960118 |
| EP 725053 | B1 | 20000405 | | |
| R: BE, DE, FR, GB, IE, IT, NL | | | | |
| EP 840170 | A1 | 19980506 | EP 1998-100123 | 19960118 |
| EP 840170 | B1 | 20000405 | | |
| R: BE, DE, FR, GB, IT, NL, IE | | | | |
| JP 08245463 | A | 19960924 | JP 1996-35738 | 19960131 |
| KR 203228 | B1 | 19990615 | KR 1996-2403 | 19960201 |
| PRIORITY APPLN. INFO.: | | | US 1995-384501 | A3 19950201 |
| | | | EP 1996-300364 | A3 19960118 |

OTHER SOURCE(S): MARPAT 125:234415

ED Entered STN: 20 Aug 1996

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title ester is represented by the formula I or II (R1, R2, R12, R12 = H, OD, halogen, C1-4 alkyl, a C1-4 alkyl ether group, or a C1-4 alkyl thioether group; R3-10, R13, R14 = H, halogen, C1-4 alkyl, a C1-4 alkyl ether group, or a C1-4 alkyl thioether group; x, y = an integer of 0, 1-4; Ra-d = H or C1-4 alkyl; v, w = 0 or 1 with the sum of v and w being 1 or 2; A, B = O, S, or methylene; OD = OH or an o-quinonediazidesulfonic acid ester group wherein D is selected from naphthoquinonediazidesulfonyl and benzonaphthoquinonediazidesulfonyl groups, provided that at least one OD is an o-quinonediazidesulfonic acid ester group) and a process for forming patterned image using a pos. photoresist containing the title ester is also disclosed.

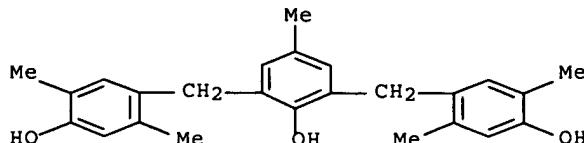
IT 148398-19-0P

10/562,361

(preparation and reaction in preparing phenolic compound
quinonediazidesulfonates for photoresists)

RN 148398-19-0 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-2,5-dimethylphenyl)methyl]-4-methyl- (CA
INDEX NAME)

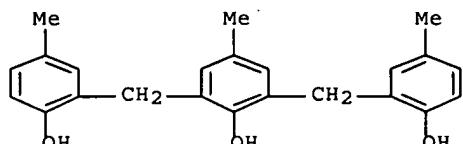


IT 1620-68-4

(speed enhancer for pos. photoresists containing phenolic compound
quinonediazidesulfonates)

RN 1620-68-4 HCPLUS

CN Phenol, 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methyl- (CA INDEX
NAME)



IC ICM G03F007-023

INCL 430192000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)

IT 2092-49-1P 3626-48-0P 148398-19-0P 181622-03-7P

181622-05-9P 181622-07-1P 181622-24-2P 181622-27-5P

181622-29-7P 181622-31-1P

(preparation and reaction in preparing phenolic compound
quinonediazidesulfonates for photoresists)

IT 843-55-0, 4,4'-Cyclohexylidenebisphenol 1620-68-4

110726-28-8

(speed enhancer for pos. photoresists containing phenolic compound
quinonediazidesulfonates)

L50 ANSWER 27 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:391663 HCPLUS Full-text

DOCUMENT NUMBER: 125:100153

ORIGINAL REFERENCE NO.: 125:18554h,18555a

TITLE: Positive photoresist composition

INVENTOR(S): Shirakawa, Koji; Sato, Kenichiro; Kodama,
Kunihiko; Kawabe, Yasumasa; Sakuguchi, Shinji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

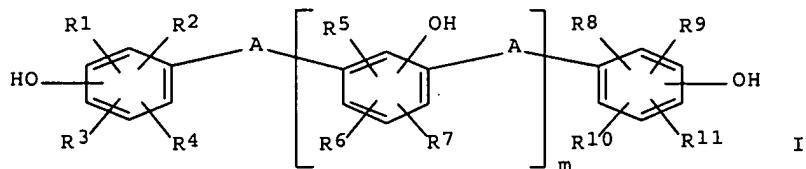
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| EP 710886 | A1 | 19960508 | EP 1995-117085 | 19951030 |
| EP 710886 | B1 | 19990721 | | |
| R: BE, DE | | | | |
| JP 08129255 | A | 19960521 | JP 1994-267491 | 19941031 |
| JP 3278306 | B2 | 20020430 | | |
| US 5629128 | A | 19970513 | US 1995-531081 | 19950920 |
| PRIORITY APPLN. INFO.: | | | JP 1994-267491 | A 19941031 |

OTHER SOURCE(S): MARPAT 125:100153

ED Entered STN: 09 Jul 1996

GI

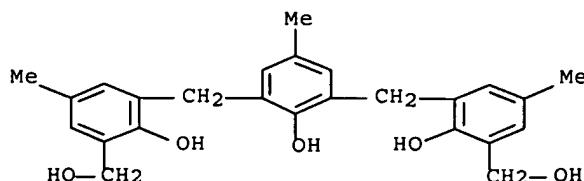


AB A pos. photoresist composition is described, which comprises an alkali-soluble resin and 1,2-naphthoquinonodiazido-5-(and/or -4-)sulfonate of a polyhydroxy compound represented by the formula I wherein R1 to R11 are the same or different and each represents a hydrogen atom, a halogen atom, an alkyl group, an aryl group, an alkoxy group, an acyl group, or a cycloalkyl group, provided that at least one of R1 to R11 is a cycloalkyl group; A represents -CH(R12)-, in which R12 represents a hydrogen atom or an alkyl group; m represents 2 or 3.

IT 22247-59-2P 115052-64-7P 170446-63-6P
(preparation and reaction in preparing photosensitive esters for pos. photoresist compns.)

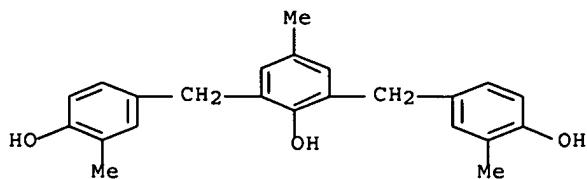
RN 22247-59-2 HCAPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[2-hydroxy-5-methyl- (CA INDEX NAME)



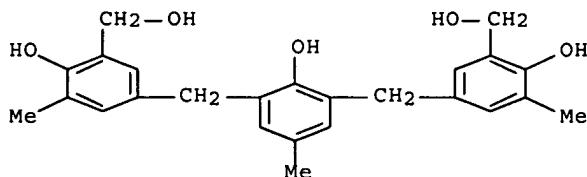
RN 115052-64-7 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3-methylphenyl)methyl]-4-methyl- (CA INDEX
NAME)



RN 170446-63-6 HCPLUS

CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis[6-hydroxy-5-methyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-022

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 6641-13-0P 22247-59-2P 115052-64-7P 123766-40-5P
170446-63-6P 170636-11-0P 178206-72-9P 178206-73-0P
178206-74-1P 178206-75-2P 178206-76-3P 178206-77-4P
178206-78-5P 178206-79-6P 178206-80-9P 178206-81-0P
(preparation and reaction in preparing photosensitive esters for pos. photoresist compns.)

L50 ANSWER 28 OF 32 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:838766 HCPLUS Full-text

DOCUMENT NUMBER: 124:71607

ORIGINAL REFERENCE NO.: 124:13133a,13136a

TITLE: Positive-working photoresist compositions using specific quinonediazide compound

INVENTOR(S): Aoso, Toshiaki; Kawabe, Yasumasa; Sakaguchi, Shinji

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

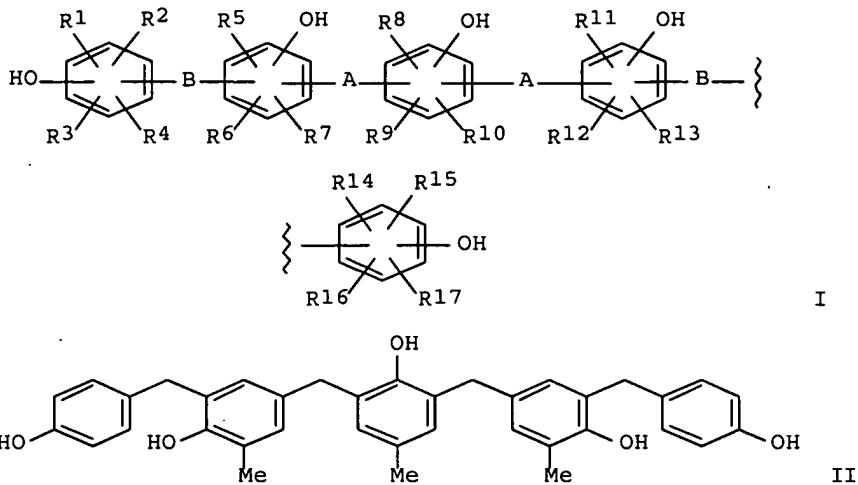
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 07159989 | A | 19950623 | JP 1993-310613 | 19931210 |

JP 3429039
PRIORITY APPLN. INFO.:

B2 20030722

JP 1993-310613

19931210

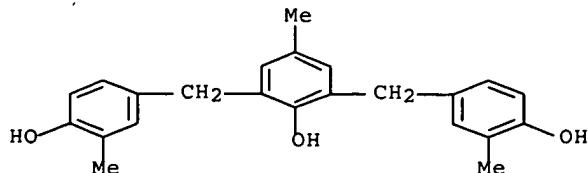
ED Entered STN: 07 Oct 1995
GI

AB The title photoresist compns. contain an alkali-soluble resin and 1,2-naphthoquinonediazido-5- (and/or 4-)sulfonate of a polyhydric compound I [R1-17 = H, halo, alkyl, aryl, alkoxy, acyloxy, acyl, alkenyl, aralkyl, OH; A, B = O, S, CO, CS, SO, SO₂, SO₃, CO₂, CONH, SO₂NH, CR₁₈R₁₉ (R₁₈, R₁₉ = H, halo, alkyl, aryl, alkoxy, R₁₈ and R₁₉ may form a ring)]. The compns. provide high-resolution patterns regardless of thickness and show good developability and development latitude. Thus, a photoresist comprised m-cresol-p-cresol-HCHO novolak resin and 1,2-naphthoquinonediazido-5-sulfonate of II was prepared

IT 115052-64-7P
(preparation of polyhydric compound)

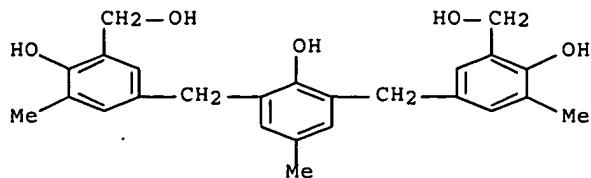
RN 115052-64-7 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



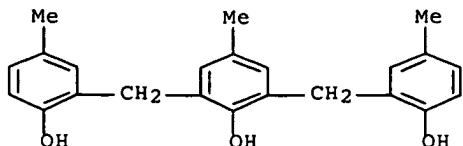
IT 170446-63-6
(preparation of polyhydric compound)

RN 170446-63-6 HCAPLUS
 CN Benzénemethanol, 3,3'-[(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)]bis[6-hydroxy-5-methyl- (9CI) (CA INDEX NAME)



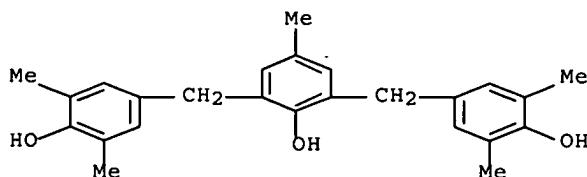
IC ICM G03F007-022
 ICS H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 115052-64-7P
 (preparation of polyhydric compound)
 IT 50-00-0, Formaldehyde, reactions 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 95-48-7, o-Cresol, reactions 108-95-2, Phenol, reactions 2467-25-6 7451-94-7, 4,6-Bis(hydroxymethyl)-2-methylphenol
170446-63-6
 (preparation of polyhydric compound)

L50 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1993:581871 HCAPLUS Full-text
 DOCUMENT NUMBER: 119:181871
 ORIGINAL REFERENCE NO.: 119:32527a,32530a
 TITLE: Synthesis and characterization of condensed trimers from cresols and p-chlorophenol
 AUTHOR(S): Sauer, E.; Schopf, G.; Polz, K.; Bendig, J.
 CORPORATE SOURCE: Dep. Chem., Humboldt-Univ., Berlin, D-1040,
 Germany
 SOURCE: Journal fuer Praktische Chemie/Chemiker-Zeitung
 (1993), 335(2), 185-9
 CODEN: JPCCEM; ISSN: 0941-1216
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 30 Oct 1993
 AB A systematic synthesis of phenolic trimers used as oligomeric resins in photolithog. is possible. The percentage of byproducts was determined by gel permeation chromatog. and 1H-NMR spectroscopy. The byproduct content could be kept low ($\leq 12\%$) by an improved and reproducible synthetic technique described in this paper. Some selected properties of the products and potentialities and limits of anal. investigation are discussed.
 IT 1620-68-4P 66232-87-9P 100267-42-3P
 (preparation of, for photoresists)
 RN 1620-68-4 HCAPLUS
 CN Phenol, 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



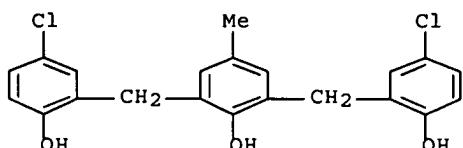
RN 66232-87-9 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-dimethylphenyl)methyl]-4-methyl- (CA INDEX NAME)



RN 100267-42-3 HCAPLUS

CN Phenol, 2,6-bis[(5-chloro-2-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)

CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74IT 1620-68-4P 66232-87-9P 100267-42-3P
124331-96-0P 145612-75-5P 145612-77-7P 148780-12-5P
148780-13-6P 148780-14-7P
(preparation of, for photoresists)

L50 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:117233 HCAPLUS Full-text

DOCUMENT NUMBER: 116:117233

ORIGINAL REFERENCE NO.: 116:19627a,19630a

TITLE: Selected block copolymer novolak binder resins and
their use in radiation-sensitive compositions for
positive photoresistsINVENTOR(S): Jeffries, Alfred J.; Honda, Kenji; Blakeney,
Andrew J.; Tadros, Sobhy

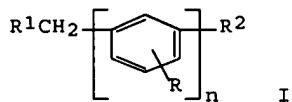
PATENT ASSIGNEE(S): Olin Hunt Specialty Products, Inc., USA

SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 9104512 | A1 | 19910404 | WO 1990-US4307 | 19900802 |
| W: AU, BB, BG, BR, CA, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU | | | | |
| RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG | | | | |
| AU 9063533 | A | 19910418 | AU 1990-63533 | 19900802 |
| US 5188921 | A | 19930223 | US 1991-711351 | 19910604 |
| US 5235022 | A | 19930810 | US 1992-979889 | 19921123 |
| US 5234795 | A | 19930810 | US 1992-979890 | 19921123 |
| PRIORITY APPLN. INFO.: | | | US 1989-404139 | A 19890907 |
| | | | WO 1990-US4307 | A 19900802 |
| | | | US 1991-711351 | A3 19910604 |

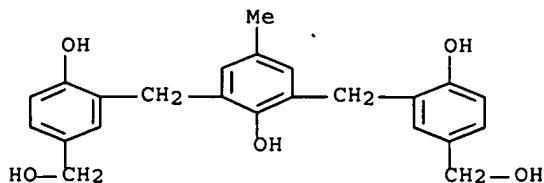
ED Entered STN: 20 Mar 1992
GI

AB The title resins which are especially useful in pos.-working photoresist compns. are composed of the reaction product of a reactive ortho-ortho bonded oligomer of the formula I (R = H, C1-4 lower alkyl, C1-4 lower alkoxy, or halogen; R1 = OH, alkoxy, or halogen; R2 = H, alkyl, alkoxy, halogen, OH, CH2OH, halomethyl, or alkoxy methyl; n = 2-7) and an alkali-soluble phenolic moiety having ≥2 phenolic nuclei and ≥2 unsubstituted positions ortho and para to the hydroxyls in the moiety. Thus, a p-cresol trimer (2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methylphenol) was prepared from p-cresol and 2,6-bis(hydroxymethyl)-p-cresol and then reacted with a m-cresol-HCHO copolymer to give a block copolymer novolak. This novolak was then mixed with 2,3,4,4'-tetrahydroxybenzophenone 1,2-naphthoquinone-2-diazide-5-sulfonate to give a photoresist showing excellent photospeed and line-and-space resolution

IT 139197-88-9P
 (preparation and polymerization of, for block copolymer novolak binders for pos. photoresists)

RN 139197-88-9 HCPLUS

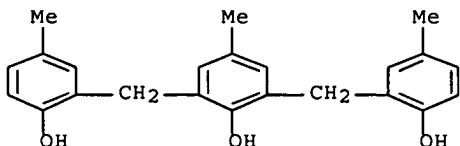
CN Benzenemethanol, 3,3'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)]bis[4-hydroxy- (CA INDEX NAME)



IT 1620-68-4P, 2,6-Bis[(2-hydroxy-5-methylphenyl)methyl]-4-methylphenol
 (preparation and reaction of, in preparation of block copolymer novolak binders for pos. photoresists)

RN 1620-68-4 HCAPLUS

CN Phenol, 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



IC ICM G03F007-023

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

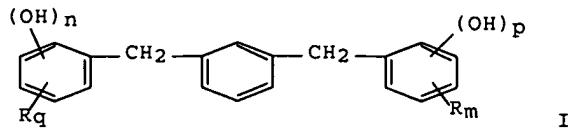
IT 22247-58-1P, 3,3'-Methylenebis[2-hydroxy-5-methylbenzenemethanol] 139197-88-9P 139197-92-5P
 (preparation and polymerization of, for block copolymer novolak binders for pos. photoresists)

IT 1620-68-4P, 2,6-Bis[(2-hydroxy-5-methylphenyl)methyl]-4-methylphenol 19480-52-5P, p-Cresol pentamer
 (preparation and reaction of, in preparation of block copolymer novolak binders for pos. photoresists)

L50 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:48953 HCAPLUS Full-text
 DOCUMENT NUMBER: 116:48953
 ORIGINAL REFERENCE NO.: 116:8307a,8310a
 TITLE: Positive-working photoresist compositions
 INVENTOR(S): Kataoka, Mutsuo; Oseto, Hiroki; Oshige, Saburo
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 03230164 | A | 19911014 | JP 1990-25715 | 19900205 |
| PRIORITY APPLN. INFO.: | | | JP 1990-25715 | 19900205 |

ED Entered STN: 08 Feb 1992
 GI



AB The title compns. contain (a) novolak obtained from 20/80 to 80/20 (mol) m-cresol-p-cresol mixture that contain \leq 10 weight% dimer and \geq 10 weight% trimer, and (b) naphthoquinone-1,2-diazide-5-(or 4-) sulfonate ester of tetrahydroxy-, pentahydroxy-, or hexahydroxybenzophenone. The compns. may also contain novolak consisting of novolak mixture containing \leq 10 weight% dimer and \leq 5 weight% trimer, which is added with compds. with novolak trimer structure. The added trimers preferably have structure I ($p, n = 1, 2; m, q = 1-4; p+m < 5; n+q < 5$; R = lower alkyl, halo, lower alkoxy). Dissoln. rate of the trimer layer in aqueous 2.38% Me₄NOH is preferably \geq 200Å/s. The compns. provide high resolution, sensitivity and mask reproducibility, and do not produce scum on development. Thus, a m-cresol-p-cresol novolak was fractionated by precipitation and a fraction containing 6.1 weight% dimer and 3.0 weight% trimer was obtained. A photosensitive composition this fraction and 2,6-bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol (trimer content of the novolak fraction 12.7 weight%), and diazido ester, showed excellent resolution of 0.40-μm line-and-space, and high γ value.

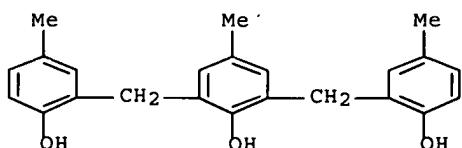
IT 1620-68-4 20738-82-3 66232-87-9

100267-42-3

(photoresists containing cresol novolaks and diazide esters and, dimer and trimer content of, for improved performance)

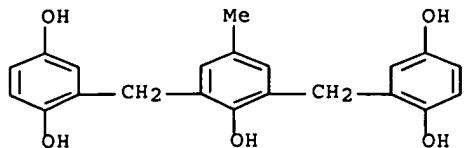
RN 1620-68-4 HCPLUS

CN Phenol, 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methyl- (CA INDEX NAME)



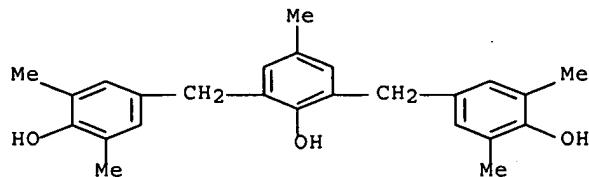
RN 20738-82-3 HCPLUS

CN 1,4-Benzenediol, 2,2'-(2-hydroxy-5-methyl-1,3-phenylene)bis(methylene)bis- (CA INDEX NAME)



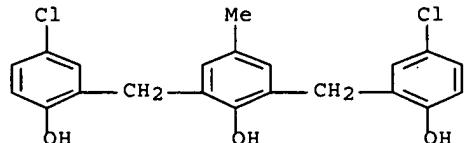
RN 66232-87-9 HCAPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-dimethylphenyl)methyl]-4-methyl- (CA INDEX NAME)



RN 100267-42-3 HCAPLUS

CN Phenol, 2,6-bis[(5-chloro-2-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)

IC ICM G03F007-023
ICS H01L021-027CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)

Section cross-reference(s): 38

IT 1620-68-4 20738-82-3 66232-87-9
100267-42-3(photoresists containing cresol novolaks and diazide esters and, dimer
and trimer content of, for improved performance)

L50 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:27933 HCAPLUS Full-text

DOCUMENT NUMBER: 112:27933

ORIGINAL REFERENCE NO.: 112:4713a,4716a

TITLE: Photoactive compound structure and resist
function: the influence of chromophore proximityAUTHOR(S): Szmenda, Charles R.; Zampini, Anthony; Madoux,
David C.; McCrants, Clayton L.

CORPORATE SOURCE: Shipley Co., Inc., Newton, MA, 02162, USA

SOURCE: Proceedings of SPIE-The International Society for
Optical Engineering (1989), 1086 (Adv. Resist

10/562,361

Technol. Process. 6), 363-73
CODEN: PSISDG; ISSN: 0277-786X

DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 21 Jan 1990

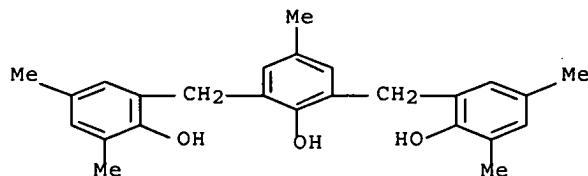
AB The influence of structure of photoactive compound (PAC) was determined by examining the dissoln. characteristics of various exptl. photoresists. The PACs in these materials have structures in which the PAC chromophores are deployed at low and high d. but otherwise have the same functionality, with 3 diazoquinone (DAQ) moieties per PAC mol. The studies indicate that the greatest degree of dissoln. inhibition is obtained when the DAQ groups are spread broadly across the same mol. Furthermore, those PACs which showed the strongest inhibition in unexposed and lightly exposed resists exhibited the least dissoln. rate enhancement in exposed resists. Resists made with PACs whose DAQ moieties are widely separated exhibit an extraordinary supralinear relation between the dissoln. rate and the exposure energy. Energy reaction orders for these materials have values much greater than the expected value of 3 predicted by polyphotolysis theory. A possible mechanism for this phenomenon is proposed. In addition, the lithog. implications of the dissoln. characteristics of these exptl. resists are discussed as they relate to resist optimization.

IT 35924-04-0 66232-87-9

(chromophore proximity effect in photoresist containing photoactive compound of)

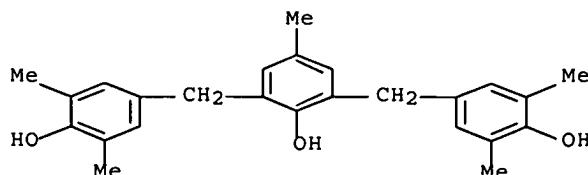
RN 35924-04-0 HCPLUS

CN Phenol, 2,6-bis[(2-hydroxy-3,5-dimethylphenyl)methyl]-4-methyl- (CA INDEX NAME)



RN 66232-87-9 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxy-3,5-dimethylphenyl)methyl]-4-methyl- (CA INDEX NAME)



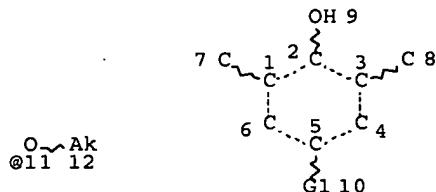
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 5610-94-6 35924-04-0 66232-87-9

(chromophore proximity effect in photoresist containing photoactive compound of)

10/562,361

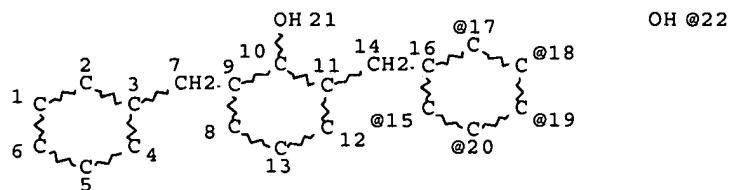
=> d que 151
L2 5 SEA FILE=REGISTRY ABB=ON PLU=ON (108-95-2/BI OR 2203-14-7
/BI OR 317804-55-0/BI OR 54845-41-9/BI OR 56272-52-7/BI)
L11 SCR 1918
L13 STR



VAR G1=AK/CB/X/11
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 7
CONNECT IS E2 RC AT 8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L15 SCR 1992
L17 3232 SEA FILE=REGISTRY SSS FUL L13 NOT (L11 OR L15)
L18 3 SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND L2
L19 2 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L18
L20 1 SEA FILE=REGISTRY ABB=ON PLU=ON L19 NOT MAN/CI
L21 STR



VPA 22-17/18/19/20/15 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L24 1044 SEA FILE=REGISTRY SUB=L17 SSS FUL L21
L25 424 SEA FILE=REGISTRY ABB=ON PLU=ON L24 AND 3/NR

10/562,361

L28 100 SEA FILE=REGISTRY ABB=ON PLU=ON L25 AND 4-HYDROXY?/CNS
L29 324 SEA FILE=REGISTRY ABB=ON PLU=ON L25 NOT L28
L30 9433 SEA FILE=REGISTRY ABB=ON PLU=ON 108-95-2/CRN
L32 186 SEA FILE=HCAPLUS ABB=ON PLU=ON L28
L33 715 SEA FILE=HCAPLUS ABB=ON PLU=ON L29
L34 66 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND L33
L35 4775 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
L36 35397 SEA FILE=HCAPLUS ABB=ON PLU=ON L30
L37 147 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L36
L39 80249 SEA FILE=HCAPLUS ABB=ON PLU=ON L20
L40 306 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L39
L42 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PHOTOG?/SC, SX
L43 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND PHOTOG?/SC, SX
L44 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND PHOTOG?/SC, SX
L45 75 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 OR L44
L48 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND (RECORD? OR
PRINT?)
L49 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L48
L50 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 OR L49
L51 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 NOT L50

=> d 151 1-28 ibib ed abs hitstr hitind

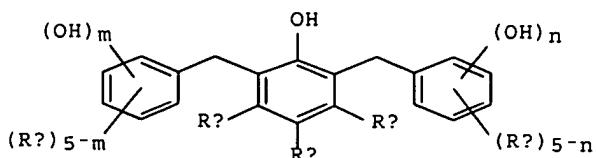
L51 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:677734 HCAPLUS Full-text
DOCUMENT NUMBER: 145:113470
TITLE: Thermal printing material containing
phenol condensate color developer
INVENTOR(S): Kobayashi, Hiroshi; Kabashima, Kazuo
PATENT ASSIGNEE(S): Asahi Kasei Chemicals Corporation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2006181858 | A | 20060713 | JP 2004-377581 | 20041227 |
| PRIORITY APPLN. INFO.: | | | JP 2004-377581 | 20041227 |

OTHER SOURCE(S): MARPAT 145:113470

ED Entered STN: 13 Jul 2006

GI

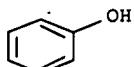


AB The material comprises a support successively coated with an intermediate layer and a coloring layer containing a color developer I with three phenol rings [Ra = C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, halo, C7-14 aralkyl or aryl; Rb = H, C1-4 alkyl, C1-4 alkoxy, halo; Rc = H, halo, cyano, C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, C7-14 aralkyl or aryl; m, n = 1-5], a part of I satisfying that (A) ≥1 of 4- or 4'- position of the both sides rings is substituted with OH and (B) ≥1 group adjacent to the OH is H. The material shows high sensitivity and gives clear image with good storage stability under high temperature and moisture conditions.

IT 108-95-2D, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7D,
2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol 54845-41-9D, reaction products with phenol 172210-41-2
(color developer; thermal printing material having intermediate layer and heat-sensitive layer containing phenol condensate color developer)

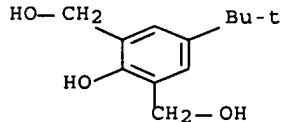
RN 108-95-2 HCPLUS

CN Phenol (CA INDEX NAME)



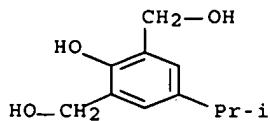
RN 2203-14-7 HCPLUS

CN 1,3-Benzenedimethanol, 5-(1,1-dimethylethyl)-2-hydroxy- (CA INDEX NAME)



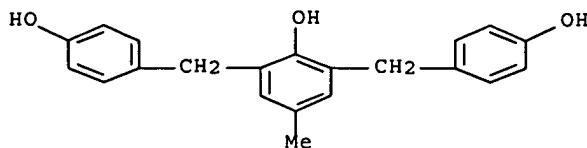
RN 54845-41-9 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-(1-methylethyl)- (CA INDEX NAME)



RN 172210-41-2 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)



CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)

ST thermal printing material intermediate layer; phenol
condensate color developer thermal printing material

IT Clays, uses
(calcined, intermediate layer containing; thermal printing
material having intermediate layer and heat-sensitive layer containing
phenol condensate color developer)

IT Thermal printing materials
(thermal printing material having intermediate layer and
heat-sensitive layer containing phenol condensate color developer)

IT Acrylic polymers, uses
(with styrene, intermediate layer containing; thermal printing
material having intermediate layer and heat-sensitive layer containing
phenol condensate color developer)

IT 108-95-2D, Phenol, reaction products with
dihydroxymethylphenol derivative 2203-14-7D,
2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol
54845-41-9D, reaction products with phenol 172210-41-2
(color developer; thermal printing material having
intermediate layer and heat-sensitive layer containing phenol
condensate color developer)

IT 79-10-7D, Acrylic acid, esters, polymers with styrene 100-42-5D,
Styrene, copolymers with acrylic acid ester 9002-89-5, Poly(vinyl
alcohol) 9003-53-6, Polystyrene 9003-55-8, Styrene-butadiene
copolymer 9011-14-7, Poly(methyl methacrylate) 21645-51-2,
Aluminum hydroxide, uses
(intermediate layer containing; thermal printing material
having intermediate layer and heat-sensitive layer containing phenol
condensate color developer)

L51 ANSWER 2 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:677663 HCPLUS Full-text

DOCUMENT NUMBER: 145:113469

TITLE: Heat-sensitive composition containing phenol
condensate color developer and heat-meltable
compound for thermal printing material

INVENTOR(S): Kobayashi, Hiroshi; Kabashima, Kazuo

PATENT ASSIGNEE(S): Asahi Kasei Chemicals Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

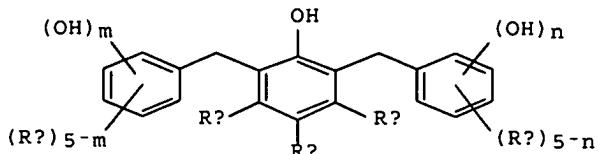
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| JP 2006181857 | A | 20060713 | JP 2004-377580 | 20041227 |
| PRIORITY APPLN. INFO.: | | | JP 2004-377580 | 20041227 |

OTHER SOURCE(S) : MARPAT 145:113469
 ED Entered STN: 13 Jul 2006
 GI



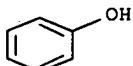
I

AB The composition contains a heat meltable compound with 60-180° m.p. and color developer I with three phenol rings [Ra = C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, halo, C7-14 aralkyl or aryl; Rb = H, C1-4 alkyl, C1-4 alkoxy, halo; Rc = H, halo, cyano, C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, C7-14 aralkyl or aryl; m, n = 1-5], a part of I satisfying that (A) ≥1 of 4- or 4'- position of the both sides rings is substituted with OH and (B) ≥1 group adjacent to the OH is H. Printing material comprises a support coated with the composition. The material shows high sensitivity and gives clear images with good storage stability under high humidity conditions.

IT 108-95-2DP, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7DP,
 2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol
 54845-41-9DP, reaction products with phenol
 (color developer; thermal printing material containing phenol condensate color developer and heat-meltable compound)

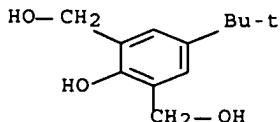
RN 108-95-2 HCAPLUS

CN Phenol (CA INDEX NAME)



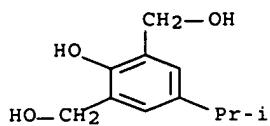
RN 2203-14-7 HCAPLUS

CN 1,3-Benzenedimethanol, 5-(1,1-dimethylethyl)-2-hydroxy- (CA INDEX NAME)

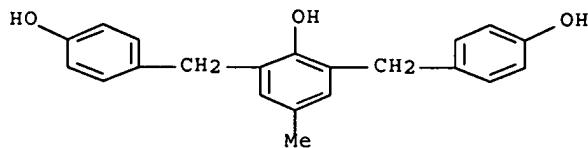


RN 54845-41-9 HCAPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-(1-methylethyl)- (CA INDEX NAME)



IT 172210-41-2
 (color developer; thermal printing material containing phenol condensate color developer and heat-meltable compound)
 RN 172210-41-2 HCPLUS
 CN Phenol, 2,6-bis[(4-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)



CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST phenol condensate color developer thermal printing material; heat meltable compd thermal printing material
 IT 108-95-2DP, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7DP,
 2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol
 54845-41-9DP, reaction products with phenol
 (color developer; thermal printing material containing phenol condensate color developer and heat-meltable compound)
 IT 172210-41-2
 (color developer; thermal printing material containing phenol condensate color developer and heat-meltable compound)
 IT 92-06-8, 1,1':3',1'''-Terphenyl 94-18-8, Benzyl 4-hydroxybenzoate
 104-66-5, 1,2-Diphenoxymethane 120-61-6, Dimethyl terephthalate
 124-26-5, Stearic acid amide 127-63-9, Diphenyl sulfone 613-42-3,
 p-Benzylbiphenyl 613-62-7, β-Naphthylbenzyl ether 7579-36-4,
 Dibenzyl oxalate 10403-74-4, 1,2-Diphenoxymethylbenzene
 18241-31-1, HS 3520 19829-42-6, Oxalic acid di(p-chlorobenzyl) ester
 19851-61-7, Dibenzyl terephthalate 34101-86-5, 1,2-Bis(3,4-dimethylphenyl)ethane 54914-85-1
 (heat-meltable compound; thermal printing material containing phenol condensate color developer and heat-meltable compound)

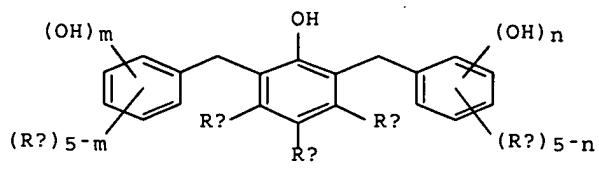
L51 ANSWER 3 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:677647 HCPLUS Full-text
 DOCUMENT NUMBER: 145:113468
 TITLE: Thermal printing material containing pulverized phenol condensate color developer
 INVENTOR(S): Kobayashi, Hiroshi; Kabashima, Kazuo
 PATENT ASSIGNEE(S): Asahi Kasei Chemicals Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2006181856 | A | 20060713 | JP 2004-377579 | 20041227 |
| PRIORITY APPLN. INFO.: | | | JP 2004-377579 | 20041227 |

OTHER SOURCE(S): MARPAT 145:113468

ED Entered STN: 13 Jul 2006
 GI

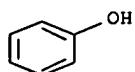


AB The material contains pulverized color developer (average particle size 0.05-5 μm) I with three phenol rings [Ra = C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, halo, C7-14 aralkyl or aryl; Rb = H, C1-4 alkyl, C1-4 alkoxy, halo; Rc = H, halo, cyano, C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, C7-14 aralkyl or aryl; m, n = 1-5], a part of I satisfying that (A) ≥ 1 of 4- or 4'- position of the both sides rings is substituted with OH and (B) ≥ 1 group adjacent to the OH is H. Thermal printing material is manufactured by coating the heat-sensitive layer at pH 5-12. The material shows high sensitivity, gives clear images without background fog and showing good storage stability and moisture resistance.

IT 108-95-2DP, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7DP,
 2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol 54845-41-9DP, reaction products with phenol (color developer; thermal printing material containing phenol condensate color developer)

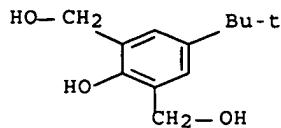
RN 108-95-2 HCPLUS

CN Phenol (CA INDEX NAME)



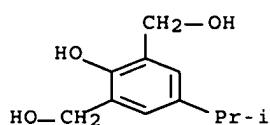
RN 2203-14-7 HCPLUS

CN 1,3-Benzenedimethanol, 5-(1,1-dimethylethyl)-2-hydroxy- (CA INDEX NAME)



RN 54845-41-9 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-(1-methylethyl)- (CA INDEX NAME)

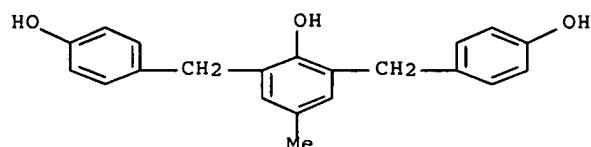


IT 172210-41-2

(color developer; thermal printing material containing phenol condensate color developer)

RN 172210-41-2 HCPLUS

CN Phenol, 2,6-bis[(4-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)



CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST thermal printing material pulverized color developer; phenol condensate color developer thermal printing

IT Thermal printing materials

(thermal printing material containing phenol condensate color developer)

IT 108-95-2DP, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7DP, 2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol 54845-41-9DP, reaction products with phenol (color developer; thermal printing material containing phenol condensate color developer)

IT 172210-41-2

(color developer; thermal printing material containing phenol condensate color developer)

L51 ANSWER 4 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:677630 HCPLUS Full-text

DOCUMENT NUMBER: 145:113467

TITLE: Coloring composition containing phenol derivative color developer and fluoran compound

INVENTOR(S): Kobayashi, Hiroshi; Kabashima, Kazuo

PATENT ASSIGNEE(S): Asahi Kasei Chemicals Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2006181855 | A | 20060713 | JP 2004-377578 | 20041227 |
| PRIORITY APPLN. INFO.: | | | JP 2004-377578 | 20041227 |

OTHER SOURCE(S): MARPAT 145:113467

ED Entered STN: 13 Jul 2006
GI

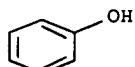
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The composition contains fluoran compound I [Y₁₋₂ = C₂₋₈ alkyl or aralkyl ≥ 1 of Y₁₋₂ has C₄₋₈] and a color developer II with three phenol rings [Ra = C₁₋₁₈ alkyl, C₅₋₁₀ cycloalkyl, C₁₋₄ alkoxy, halo, C₇₋₁₄ aralkyl or aryl; Rb = H, C₁₋₄ alkyl, C₁₋₄ alkoxy, halo; Rc = H, halo, cyano, C₁₋₁₈ alkyl, C₅₋₁₀ cycloalkyl, C₁₋₄ alkoxy, C₇₋₁₄ aralkyl or aryl; m, n = 1-5], in which a part of II satisfies (A) ≥ 1 of 4- or 4'- position of the both sides rings is substituted with OH and (B) ≥ 1 group adjacent to the OH is H. Printing material contains the composition. The material shows high sensitivity, gives clear images without background fog and showing good storage stability and moisture resistance.

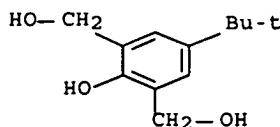
IT 108-95-2DP, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7DP,
2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol 54845-41-9DP, reaction products with phenol (color developer; thermal printing material containing phenol derivative color developer and fluoran compd)

RN 108-95-2 HCPLUS

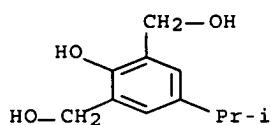
CN Phenol (CA INDEX NAME)



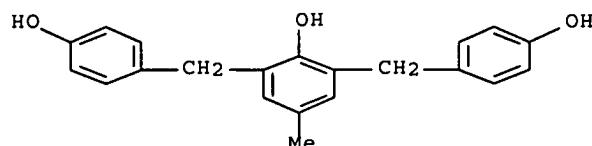
RN 2203-14-7 HCPLUS
CN 1,3-Benzenedimethanol, 5-(1,1-dimethylethyl)-2-hydroxy- (CA INDEX NAME)



RN 54845-41-9 HCAPLUS
 CN 1,3-Benzenedimethanol, 2-hydroxy-5-(1-methylethyl)- (CA INDEX NAME)



IT 172210-41-2
 (color developer; thermal printing material containing phenol derivative color developer and fluoran compd)
 RN 172210-41-2 HCAPLUS
 CN Phenol, 2,6-bis[(4-hydroxyphenyl)methyl]-4-methyl- (CA INDEX NAME)



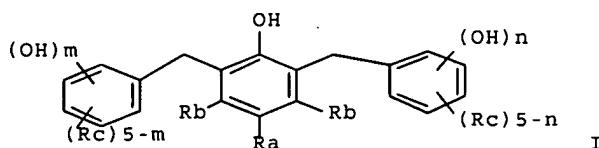
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST thermal printing fluoran phenol deriv color developer
 IT Thermal printing materials
 (thermal printing material containing phenol derivative color developer and fluoran compd)
 IT 108-95-2DP, Phenol, reaction products with dihydroxymethylphenol derivative 2203-14-7DP,
 2,6-Dihydroxymethyl-4-tert-butylphenol, reaction products with phenol
 54845-41-9DP, reaction products with phenol
 (color developer; thermal printing material containing phenol derivative color developer and fluoran compd)
 IT 172210-41-2
 (color developer; thermal printing material containing phenol derivative color developer and fluoran compd)
 IT 70516-41-5, 3-(N-Ethyl-N-isoamylamino)-6-methyl-7-anilinofluoran
 89331-94-2, 3-Dibutylamino-6-methyl-7-anilinofluoran
 (color former; thermal printing material containing phenol derivative color developer and fluoran compd)

DOCUMENT NUMBER: 142:103211
 TITLE: Phenolic color developer for thermal recording materials
 INVENTOR(S): Takahashi, Hideaki; Tsurugaya, Muneaki; Matsuda, Takayuki
 PATENT ASSIGNEE(S): Asahi Kasei Chemicals Corporation, Japan
 SOURCE: PCT Int. Appl., 48 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|------------|
| WO 2005000597 | A1 | 20050106 | WO 2004-JP8708 | 20040621 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1637337 | A1 | 20060322 | EP 2004-746177 | 20040621 |
| R: DE, ES, FR, GB, FI | | | | |
| CN 1812887 | A | 20060802 | CN 2004-80017872 | 20040621 |
| US 20070099130 | A1 | 20070503 | US 2005-562361 | 20051227 |
| PRIORITY APPLN. INFO.: | | | JP 2003-180430 | A 20030625 |
| | | | JP 2003-286513 | A 20030805 |
| | | | WO 2004-JP8708 | W 20040621 |

OTHER SOURCE(S): MARPAT 142:103211

ED Entered STN: 07 Jan 2005
 GI



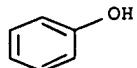
AB The invention relates to a developer which contains a triphenolic compound I (Ra = C1-18 alkyl, C5-10 cycloalkyl, C1-4 alkoxy, etc.; Rb = H, C1-4 alkyl, C1-4 alkoxy, etc.; Rc = H, halo, cyano, etc.; m, n = integer 1-5) which exhibits high sensitivity and shelf stability of images and less fog in non-image areas; and color forming materials and thermal recording materials made by using the same.

IT 108-95-2DP, Phenol, reaction product with p-substituted phenol

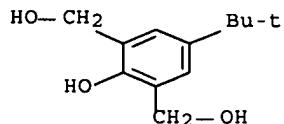
10/562,361

derivative 2203-14-7DP, 2,6-Bis(hydroxymethyl)-4-tert-butylphenol, reaction product with phenol 54845-41-9DP,
2,6-Bis(hydroxymethyl)-4-isopropylphenol, reaction product with phenol
56272-52-7DP, reaction product with phenol
(developer for recording materials)

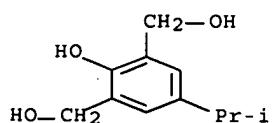
RN 108-95-2 HCPLUS
CN Phenol (CA INDEX NAME)



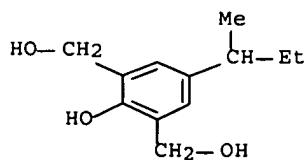
RN 2203-14-7 HCPLUS
CN 1,3-Benzenedimethanol, 5-(1,1-dimethylethyl)-2-hydroxy- (CA INDEX NAME)



RN 54845-41-9 HCPLUS
CN 1,3-Benzenedimethanol, 2-hydroxy-5-(1-methylethyl)- (CA INDEX NAME)



RN 56272-52-7 HCPLUS
CN 1,3-Benzenedimethanol, 2-hydroxy-5-(1-methylpropyl)- (CA INDEX NAME)



IC ICM B41M005-28
ICS B41M005-30; B41M005-34; C09B057-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic

and Other Reprographic Processes)
 Section cross-reference(s): 41
 ST phenolic developer thermal recording
 IT Leuco dyes
 Thermal printing materials
 (developer for recording materials)
 IT Thermal printing materials
 (sheets; developer for recording materials)
 IT 108-95-2DP, Phenol, reaction product with p-substituted phenol derivative 2203-14-7DP, 2,6-Bis(hydroxymethyl)-4-tert-butylphenol, reaction product with phenol 54845-41-9DP, 2,6-Bis(hydroxymethyl)-4-isopropylphenol, reaction product with phenol 56272-52-7DP, reaction product with phenol 317804-55-0P, Bis-P-CP
 (developer for recording materials)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

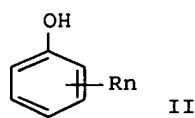
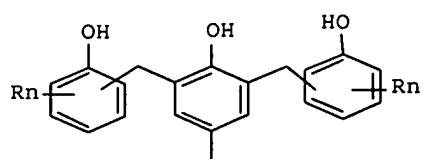
L51 ANSWER 6 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:876335 HCPLUS Full-text
 DOCUMENT NUMBER: 141:340477
 TITLE: Phenol derivative color developer and thermal printing material using it
 INVENTOR(S): Yuzuriha, Koji; Arita, Yasushi
 PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004291552 | A | 20041021 | JP 2003-90016 | 20030328 |
| PRIORITY APPLN. INFO.: | | | JP 2003-90016 | 20030328 |

OTHER SOURCE(S): MARPAT 141:340477

ED Entered STN: 22 Oct 2004

GI

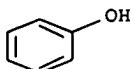


AB The color developer I [R = H, Cl-6 alkyl, (substituted) Ph, aralkyl, alkoxy, halo; n = 1-4] is claimed. I is prepared by reacting a phenolic compound II [R = H, Cl-6 alkyl, (substituted) Ph, aralkyl, alkoxy, halo; n = 1-4] with 2,6-dimethylol-p-cresol in the presence of an acid catalyst. Thermal printing material using a leuco dye and I as a color developer is also claimed. The material shows high sensitivity, resistance to water and oil, and lightfastness.

IT 108-95-2, Phenol, reactions
(reaction with dimethylolcresol)

RN 108-95-2 HCPLUS

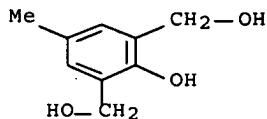
CN Phenol (CA INDEX NAME)



IT 91-04-3, 2,6-Dimethylol-p-cresol
(reaction with phenol)

RN 91-04-3 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



IC ICM B41M005-30
ICS C07B061-00; C07C037-16; C07C039-15

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 28

ST thermal printing material phenol deriv color developer;
dimethylolcresol phenol condensate color developer

IT Thermal printing materials
(thermal printing material containing phenol-dimethylolcresol condensate as color developer)

IT 95-48-7, o-Cresol, reactions 108-95-2, Phenol, reactions
(reaction with dimethylolcresol)

IT 91-04-3, 2,6-Dimethylol-p-cresol
(reaction with phenol)

L51 ANSWER 7 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:809246 HCPLUS Full-text
DOCUMENT NUMBER: 139:314555
TITLE: Phenolic resin color-developer for thermal
printing material
INVENTOR(S): Otsutsumi, Toshihiko
PATENT ASSIGNEE(S): Showa Highpolymer Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

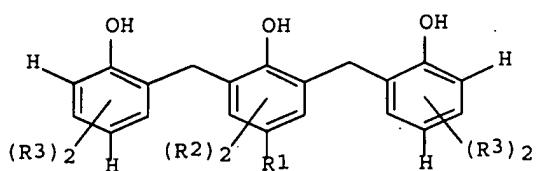
DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| JP 2003291541 | A | 20031015 | JP 2002-102814 | 20020404 |
| JP 3733081 | B2 | 20060111 | | |
| JP 2005262886 | A | 20050929 | JP 2005-101704 | 20050331 |
| PRIORITY APPLN. INFO.: | | | JP 2002-102814 | A3 20020404 |

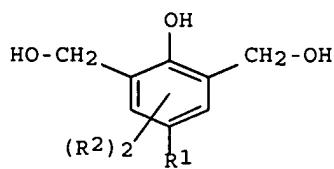
OTHER SOURCE(S): MARPAT 139:314555

ED Entered STN: 15 Oct 2003

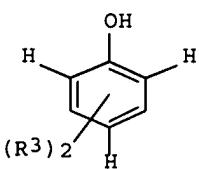
GI



I



II



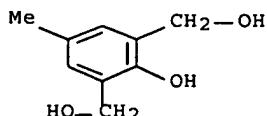
III

AB The phenolic resin contains 35-85% of trimer I and prepared by reacting 2,6-dimethylol-p-substituted phenol II and a phenol III unsubstituted at o- and p-positions. The phenolic resin is harmless and useful for color developer on thermal printing.

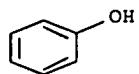
IT 91-04-3D, 2,6-Dimethylol-p-cresol, reaction products with phenols 108-95-2D, Phenol, reaction products with phenols 3173-26-0D, 2,6-Dimethylol-4-phenylphenol, reaction products with phenols 36461-81-1D, reaction products with phenols 51877-25-9D, reaction products with phenols (phenolic compound color developer for thermal printing material)

RN 91-04-3 HCPLUS

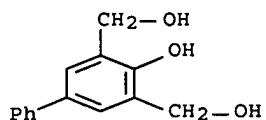
CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



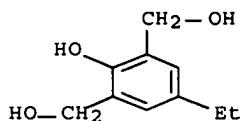
RN 108-95-2 HCAPLUS
 CN Phenol (CA INDEX NAME)



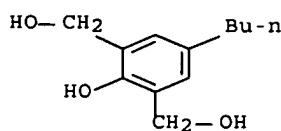
RN 3173-26-0 HCAPLUS
 CN [1,1'-Biphenyl]-3,5-dimethanol, 4-hydroxy- (CA INDEX NAME)



RN 36461-81-1 HCAPLUS
 CN 1,3-Benzenedimethanol, 5-ethyl-2-hydroxy- (CA INDEX NAME)



RN 51877-25-9 HCAPLUS
 CN 1,3-Benzenedimethanol, 5-butyl-2-hydroxy- (CA INDEX NAME)



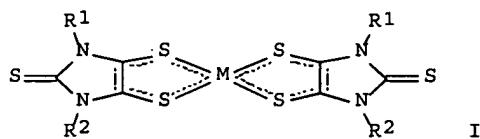
IC ICM B41M005-30
 ICS C09B057-00; C07C037-16; C07C039-15
 CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 ST thermal printing material phenol deriv color developer
 IT Thermal printing materials
 (phenolic compound color developer for thermal printing
 material)

IT 91-04-3D, 2,6-Dimethylol-p-cresol, reaction products with phenols 108-39-4D, m-Cresol, reaction products with phenols 108-68-9D, 3,5-Xylenol, reaction products with phenols 108-95-2D, Phenol, reaction products with phenols 620-17-7D, m-Ethylphenol, reaction products with phenols 3173-26-0D, 2,6-Dimethylol-4-phenylphenol, reaction products with phenols 36461-81-1D, reaction products with phenols 51877-25-9D, reaction products with phenols (phenolic compound color developer for thermal printing material)

L51 ANSWER 8 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:735197 HCPLUS Full-text
 DOCUMENT NUMBER: 139:252548
 TITLE: Lithographic printing masters containing storage-stable IR-absorbing dyes
 INVENTOR(S): Sasaki, Fumihiro; Nakamura, Ippei; Kato, Eiichi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2003262953 | A | 20030919 | JP 2002-65780 | 20020311 |
| PRIORITY APPLN. INFO.: | | | JP 2002-65780 | 20020311 |

OTHER SOURCE(S): MARPAT 139:252548
 ED Entered STN: 19 Sep 2003
 GI



AB The plates, for computer-to-plate direct platemaking employing IR lasers, contain IR-absorbing dyes I (R1, R2 = aliphatic, aromatic, or heterocyclic group; M = Ni, Pd, Pt) in image-forming layers.

IT 596805-46-8P
 (printing layers; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

RN 596805-46-8 HCPLUS

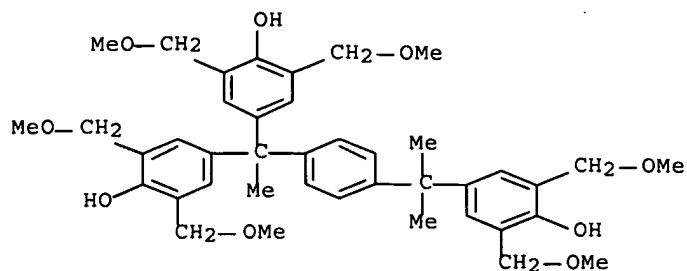
CN Formaldehyde, polymer with 4-[1-[4-[1,1-bis[4-hydroxy-3,5-bis(methoxymethyl)phenyl]ethyl]phenyl]-1-methylethyl]-2,6-bis(methoxymethyl)phenol and phenol (9CI) (CA INDEX NAME)

CM 1

CRN 161679-94-3

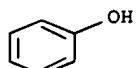
10/562,361

CMF C41 H52 O9



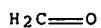
CM 2

CRN 108-95-2
CMF C6 H6 O



CM 3

CRN 50-00-0
CMF C H2 O



IC ICM G03F007-004

ICS C09K003-00; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)

Section cross-reference(s): 38

IT Optical materials

(IR absorbers; lithog. masters containing sp. IR-absorbing dyes of good
storage stability and showing improved printing
durability)

IT IR materials

(absorbers; lithog. masters containing sp. IR-absorbing dyes of good
storage stability and showing improved printing
durability)

IT Phenolic resins, preparation

(novolak, crosslinked, printing layers; lithog. masters
containing sp. IR-absorbing dyes of good storage stability and showing
improved printing durability)

IT Lithographic plates
(presensitized; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

IT 161809-01-4 600167-72-4 600167-73-5 600167-74-6 600167-75-7
600167-76-8 600167-77-9 600167-78-0 600167-80-4 600167-82-6
600167-84-8 600167-85-9 600167-87-1 600167-92-8 600167-94-0
600167-96-2 600167-98-4 600168-00-1 600168-02-3 600168-04-5
600168-06-7 600168-07-8 600168-08-9 600168-09-0
(IR-absorbing dyes; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

IT 479640-98-7P
(microcapsule shell; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

IT 30528-89-3, Allyl methacrylate-butyl methacrylate copolymer
(microencapsulated, printing layers; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

IT 27029-76-1P, m-Cresol-p-cresol-formaldehyde copolymer 121436-62-2P,
Allyl methacrylate-dipentaerythritol hexaacrylate-methacrylic acid copolymer 596805-46-8P
(printing layers; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

IT 211308-93-9
(printing layers; lithog. masters containing sp. IR-absorbing dyes of good storage stability and showing improved printing durability)

L51 ANSWER 9 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:636849 HCPLUS Full-text
DOCUMENT NUMBER: 137:192781
TITLE: Positive working lithographic direct
printing plate for infrared laser
exposure, containing novolak type phenolic resin
INVENTOR(S): Nakamura, Ippei
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2002236353 | A | 20020823 | JP 2001-32720 | 20010208 |
| PRIORITY APPLN. INFO.: | | | JP 2001-32720 | 20010208 |

ED Entered STN: 23 Aug 2002
AB The material has a recording layer containing (1) a water insol. and alkali soluble novolak type phenolic resin containing methylene linkage ≥55% to total one at an ortho-ortho site to a phenolic OH and (2) an IR absorber. The layer increases solubility to an alkaline aqueous solution by IR laser exposure. The material showed improved image formation latitude on development, contrast, and abrasion resistance.
IT 449759-94-8P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-p-cresol-formaldehyde copolymer

10/562,361

449759-96-0P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-formaldehyde-phenol copolymer

449759-98-2P, 2,6-Bis(2-hydroxy-5-fluorophenylmethyl)-4-fluorophenol-m-cresol-formaldehyde copolymer

(pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)

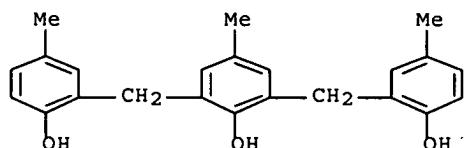
RN 449759-94-8 HCPLUS

CN Formaldehyde, polymer with 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methylphenol, 3-methylphenol and 4-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 1620-68-4

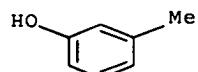
CMF C23 H24 O3



CM 2

CRN 108-39-4

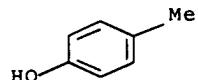
CMF C7 H8 O



CM 3

CRN 106-44-5

CMF C7 H8 O



CM 4

CRN 50-00-0

CMF C H2 O

$\text{H}_2\text{C}=\text{O}$

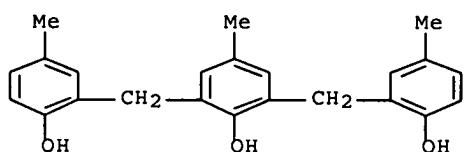
RN 449759-96-0 HCAPLUS

CN Formaldehyde, polymer with 2,6-bis[(2-hydroxy-5-methylphenyl)methyl]-4-methylphenol, 3-methylphenol and phenol (9CI) (CA INDEX NAME)

CM 1

CRN 1620-68-4

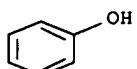
CMF C23 H24 O3



CM 2

CRN 108-95-2

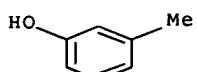
CMF C6 H6 O



CM 3

CRN 108-39-4

CMF C7 H8 O



CM 4

CRN 50-00-0

CMF C H2 O

$\text{H}_2\text{C}=\text{O}$

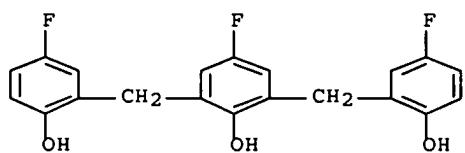
RN 449759-98-2 HCPLUS

CN Formaldehyde, polymer with 4-fluoro-2,6-bis[(5-fluoro-2-hydroxyphenyl)methyl]phenol and 3-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 71643-02-2

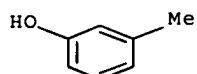
CMF C20 H15 F3 O3



CM 2

CRN 108-39-4

CMF C7 H8 O



CM 3

CRN 50-00-0

CMF C H2 O

 $\text{H}_2\text{C}=\text{O}$

IC ICM G03F007-00

ICS G03F007-032

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 449759-91-5P, m-Cresol-2,2'-dihydroxy-5,5'-dimethyldiphenylmethane-formaldehyde copolymer 449759-94-8P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-p-cresol-formaldehyde

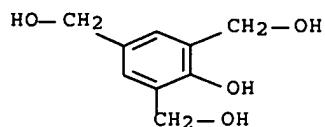
10/562,361

copolymer 449759-96-0P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-formaldehyde-phenol copolymer 449759-98-2P, 2,6-Bis(2-hydroxy-5-fluorophenylmethyl)-4-fluorophenol-m-cresol-formaldehyde copolymer (pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)

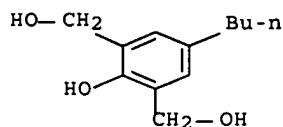
L51 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:77983 HCAPLUS Full-text
DOCUMENT NUMBER: 134:139240
TITLE: Heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof
INVENTOR(S): Kunita, Kazuto
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 47 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| EP 1072432 | A2 | 20010131 | EP 2000-113120 | 20000628 |
| EP 1072432 | A3 | 20030305 | | |
| EP 1072432 | B1 | 20050126 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2001042541 | A | 20010216 | JP 1999-212453 | 19990727 |
| AT 287798 | T | 20050215 | AT 2000-113120 | 20000628 |
| US 6670098 | B1 | 20031230 | US 2000-614114 | 20000711 |
| PRIORITY APPLN. INFO.: | | | JP 1999-212453 | A 19990727 |

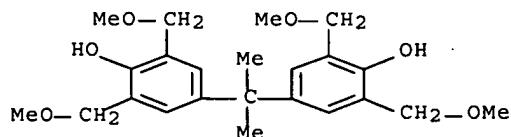
ED Entered STN: 02 Feb 2001
AB The materials have a support having thereon a recording layer which is formed of a composition whose solubility in water or in an alkali aqueous solution is altered by the effects of light or heat, and an intermediate layer which is disposed between the support and the recording layer and which has the same function as that of the recording layer and whose sensitivity to light or heat is higher than that of the recording layer. Thus, under coating a 10 g/m² layer of β-alanine on the surface of a degreased, etched and anodically oxidized Al plate, coating on top with a solution containing resol resin (Mw 5000) 0.8, m-cresol-formaldehyde-p-octylphenol novolak 1.5, acid generating naphthalene-1-sulfonium salt (I) 0.20, an IR absorbent compound 0.30, Megafac F 177 (F-containing surfactant) 0.06, MEK 10.0, γ-butyrolactone 10.0 and 1-methoxy-2-propanol 7.0 g to dry pickup weight 0.5 g/m², drying, covering on very top with a solution containing resol resin (Mw 3000) 0.8, formaldehyde-phenol novolak 1.5, I 0.20, an IR absorbent 0.15, a coloring agent 0.015, Megafac F 177 0.06, EtOAc 15.0 and MeOH 5.0 g to total coating pickup weight 2.0 g/m² gave a neg. recording plate with good coated layer adhesion, storage stability and photo-sensitivity.
IT 2937-61-3, 2,4,6-Trimethylolphenol 51877-25-9
322406-72-4
(crosslinkers; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
RN 2937-61-3 HCAPLUS
CN 1,3,5-Benzenetrimethanol, 2-hydroxy- (CA INDEX NAME)



RN 51877-25-9 HCPLUS
 CN 1,3-Benzenedimethanol, 5-butyl-2-hydroxy- (CA INDEX NAME)



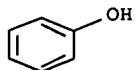
RN 322406-72-4 HCPLUS
 CN Phenol, 4,4'-(1-methylethylidene)bis[2,6-bis(methoxymethyl)-] (CA INDEX NAME)



IT 9003-35-4, Formaldehyde-phenol copolymer
 (novolak; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 RN 9003-35-4 HCPLUS
 CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2
 CMF C₆ H₆ O



CM 2

CRN 50-00-0
 CMF C H₂ O

H₂C=O

IC ICM B41M005-36
 ICS B41C001-10
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST computer aided plate formation photo sensitive coating; printing plate formation photo sensitive coating
 IT Optical materials
 (IR absorbers; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT IR materials
 (absorbers; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT Photoresists
 Printing plates
 (heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT Phenolic resins, properties
 (novolak, novolak; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT Phenolic resins, properties
 (novolak; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT Phenolic resins, properties
 (resol, coatings; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT 115840-01-2 201024-57-9 322406-70-2 322406-77-9 322406-78-0
 (IR absorbents; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT 85-47-2D, 1-Naphthalenesulfonic acid, derivative 322406-74-6
 (acid generating agents; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT 85-42-7, Hexahydrophthalic anhydride 104-15-4, -p-Toluenesulfonic acid, uses
 (additive; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT 2628-17-3D, p-Hydroxystyrene, polymers 24979-71-3,
 p-Hydroxystyrene-methyl methacrylate copolymer 25053-98-9,
 m-Cresol-formaldehyde-3,5-xylenol copolymer 25086-36-6,
 m-Cresol-formaldehyde copolymer 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 56592-54-2 62814-37-3 200628-49-5,
 2-(p-Hydroxyphenyl)ethyl methacrylate homopolymer 322406-71-3,

N-(p-Hydroxyphenyl)methacrylamide-2-(p-hydroxyphenyl)ethyl
methacrylate copolymer 322406-75-7, o-Cresol-N-(3-
hydroxyphenyl)acetamide copolymer
(binder resin; heat- and photo-sensitive image forming materials
useful for computer-aided printing plate making process
and method for forming thereof)

IT 2937-61-3, 2,4,6-Trimethylolphenol 51877-25-9
259527-87-2 322406-72-4 322406-73-5
(crosslinkers; heat- and photo-sensitive image forming materials
useful for computer-aided printing plate making process
and method for forming thereof)

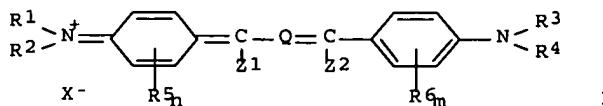
IT 9003-35-4, Formaldehyde-phenol copolymer 87622-05-7,
m-Cresol-formaldehyde-p-tert-octylphenol copolymer
(novolak; heat- and photo-sensitive image forming materials useful
for computer-aided printing plate making process and
method for forming thereof)

IT 7429-90-5, Aluminum, processes
(printing plate; heat- and photo-sensitive image forming
materials useful for computer-aided printing plate making
process and method for forming thereof)

L51 ANSWER 11 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:863743 HCPLUS Full-text
 DOCUMENT NUMBER: 134:35063
 TITLE: Negative-working IR-sensitive material for direct
printing platemaking
 INVENTOR(S): Nakamura, Ippei
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| JP 2000338651 | A | 20001208 | JP 1999-151412 | 19990531 |
| EP 1059164 | A2 | 20001213 | EP 2000-111011 | 20000530 |
| EP 1059164 | A3 | 20010404 | | |
| EP 1059164 | B1 | 20060419 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY | | | | |
| US 6383714 | B1 | 20020507 | US 2000-580525 | 20000530 |
| AT 323602 | T | 20060515 | AT 2000-111011 | 20000530 |
| PRIORITY APPLN. INFO.: | | | JP 1999-151412 | A 19990531 |
| | | | JP 1999-157987 | A 19990604 |

OTHER SOURCE(S): MARPAT 134:35063
 ED Entered STN: 11 Dec 2000
 GI

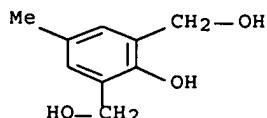


AB The title IR-sensitive material comprises (a) photo- or thermal-acid generator, (b) acid-activatable crosslinking agent, (c) water-insol., alkaline-soluble polymer, and (d) IR-absorbing agent represented by general formula I ($R1-4 = H, alkyl, aryl; R5, R6 = alkyl, substituted oxy, halo; n, m = 0-4; Z1, Z2 = H, alkyl, aryl; Q = trimethine, pentamethine; X^- = counter anion$).

IT 91-04-3 161679-94-3
(crosslinking agent in neg.-working IR-sensitive material)

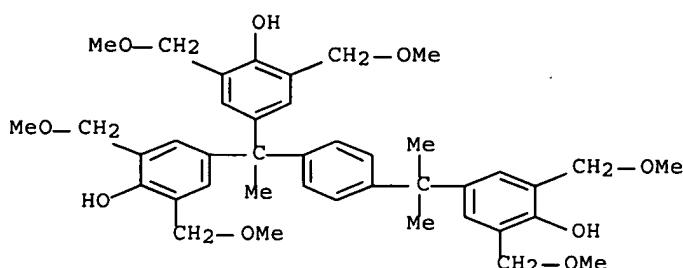
RN 91-04-3 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



RN 161679-94-3 HCPLUS

CN Phenol, 4,4'-(1-[1-[4-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(methoxymethyl)]- (CA INDEX NAME)



IT 9003-35-4, Phenol-formaldehyde copolymer
(water-insol., alkaline-soluble polymer in neg.-working IR-sensitive material)

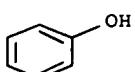
RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0
CMF C H₂ OH2C=O

IC ICM G03F007-00
 ICS B41N001-14; C08K005-13; C08K005-19; C08L101-12; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 ST neg working IR sensitive material direct printing
 platemaking; IR absorbing agent acid generator crosslinking agent
 IT Dyes
 (IR-absorbing; in neg.-working IR-sensitive material for direct
 printing platemaking)
 IT Lithographic plates
 (presensitized; neg.-working IR-sensitive material for direct
 printing platemaking)
 IT 301193-34-0P 301193-36-2P 301193-38-4P 301193-39-5P
 (IR-absorbing agent in neg.-working IR-sensitive material for
 direct printing platemaking)
 IT 91-04-3 161679-94-3 244057-80-5
 (crosslinking agent in neg.-working IR-sensitive material)
 IT 9003-35-4, Phenol-formaldehyde copolymer 24979-70-2, Maruka
 Lyncur M-S 4P
 (water-insol., alkaline-soluble polymer in neg.-working IR-sensitive
 material)

L51 ANSWER 12 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:823003 HCPLUS Full-text
 DOCUMENT NUMBER: 133:367882
 TITLE: Manufacture of direct printing plate by
 infrared laser exposure
 INVENTOR(S): Kobayashi, Fumikazu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokyo Koho, 56 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000321780 | A | 20001124 | JP 1999-126056 | 19990506 |
| PRIORITY APPLN. INFO.: | | | JP. 1999-126056 | 19990506 |

ED Entered STN: 24 Nov 2000
 AB The plate, i.e., computer-to-plate (CPT) printing plate, is manufactured by
 imagewise exposing a neg.-type thermal recording material by a so-called outer
 drum-type plate setter with 50-100 mW IR laser at 0.5-5 m/s writing speed.
 The thermal recording material comprises a hydrophilic support having thereon

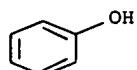
an IR-sensitive layer showing hydrophobicity after exposure and a post processing, which contains (A) a compound generating an acid by decomposition under irradiation or heating, (B) an agent for crosslinking by the acid, (C) ≥1 alkali-soluble resin, and (D) an IR-absorbing agent. The plate showed improved line and dot reproduction quality.

IT 9003-35-4, Formaldehyde-phenol copolymer
 (alkali-soluble; manufacture of computer-to-print
 printing plate by IR laser irradiation on neg.-type thermal
 recording material)

RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2
CMF C6 H6 O

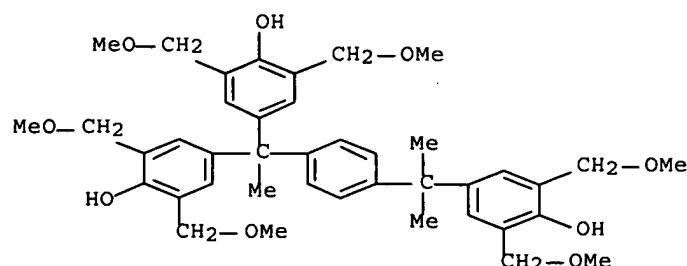
CM 2

CRN 50-00-0
CMF C H2 O

IT 161679-94-3 162846-57-3
 (crosslinking agent; manufacture of computer-to-print
 printing plate by IR laser irradiation on neg.-type thermal
 recording material)

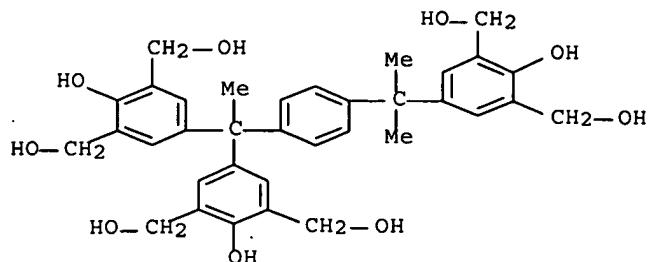
RN 161679-94-3 HCPLUS

CN Phenol, 4,4'-[1-[4-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene]bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



RN 162846-57-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-[1-[4-[1-[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene]bis[2-hydroxy- (CA INDEX NAME)



IC ICM G03F007-20

ICS B41C001-055; B41N001-24; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST direct printing plate IR laser exposure; computer to print printing plate; neg type thermal recording material printing; photodecomposable thermally decomposable acid generating agent; alkali sol resin direct printing plate

IT Optical materials

Optical materials
(IR absorbers; in manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT IR materials

IR materials
(absorbers; in manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT Phenolic resins, uses

(alkali-soluble; manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT Crosslinking agents

(in manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT IR lasers

Lithographic plates
Thermal printing materials
(manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT 23178-67-8, NK 2014 134127-48-3

(IR absorber; manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT 66003-76-7, Diphenyliodonium trifluoromethanesulfonate 220476-51-7, 2,4,6-Triethoxybenzenediazonium mesitylenesulfonate

(acid-generating agent; manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT 9003-35-4, Formaldehyde-phenol copolymer 24979-70-2,
Poly(p-hydroxystyrene)
(alkali-soluble; manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

IT 161679-94-3 162846-57-3 244057-79-2
(crosslinking agent; manufacture of computer-to-print printing plate by IR laser irradiation on neg.-type thermal recording material)

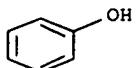
L51 ANSWER 13 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:686593 HCPLUS Full-text
 DOCUMENT NUMBER: 133:259371
 TITLE: Materials for direct IR laser imaging for lithographic printing plates
 INVENTOR(S): Nakamura, Tatsuo; Kunita, Kazuhito
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000267265 | A | 20000929 | JP 1999-66733 | 19990312 |
| JP 4041613 | B2 | 20080130 | | |
| PRIORITY APPLN. INFO.: | | | JP 1999-66733 | 19990312 |

ED Entered STN: 29 Sep 2000
 AB The materials contain at least (A) IR-absorbing dyes soluble to organic solvents and aqueous alkali and (B) polymers insol. to water and soluble to aqueous alkali for pos. image formation by IR irradiation. Also claimed materials contain (A), (B), (C) heat-acid generators, and (D) agents for crosslinking by acids for neg. image formation by IR irradiation. The materials provide high sensitivity and image storage stability.
 IT 9003-35-4, Formaldehyde-phenol copolymer
 (IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)
 RN 9003-35-4 HCPLUS
 CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2
CMF C6 H6 O

CM 2

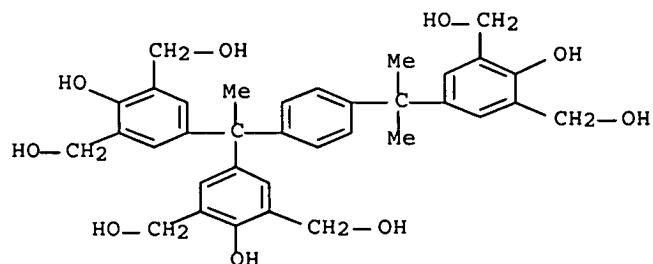
CRN 50-00-0
CMF C H₂ O $\text{H}_2\text{C}=\text{O}$

IT 162846-57-3

(crosslinking agent; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

RN 162846-57-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-[1-[4-[1-[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene]bis[2-hydroxy- (CA INDEX NAME)



IC ICM G03F007-00

ICS B41N001-14; G02B005-20; G03F003-10; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST IR absorbing dye photoresist image formation lithog printing plate

IT Optical materials
Optical materials

(IR absorbers; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT Crosslinking agents

Lithographic plates

Negative photoresists

Positive photoresists

(IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT Phenolic resins, uses

(IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT IR materials

IR materials

(absorbers; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT Phenolic resins, uses

(novolak, cresol-based; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT Phenolic resins, uses
(novolak; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT 9003-35-4, Formaldehyde-phenol copolymer 27029-76-1
124996-93-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
(IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT 162846-57-3
(crosslinking agent; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT 143557-68-0P 193208-79-6P 296252-23-8P 296252-24-9P
296252-26-1P 296252-28-3P 296252-30-7P 296252-32-9P
296252-34-1P 296252-35-2P
(dye; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT 260967-33-7
(heat-acid generator; IR laser-sensitive image forming material containing dyes and alkali-soluble polymers for lithog. printing plates)

IT 98-59-9, Tosyl chloride 121-44-8, reactions 123-30-8,
p-Aminophenol 6761-95-1 63857-00-1 134127-48-3 162411-30-5
(reaction of; in preparation of IR laser-sensitive dyes for lithog. printing plates)

L51 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:166133 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:229527
 TITLE: Infrared laser-sensitive image forming material containing ionic dye and lithographic printing plate using it
 INVENTOR(S): Nakamura, Tatsuo; Kunida, Kazuto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000075474 | A | 20000314 | JP 1998-242195 | 19980827 |
| PRIORITY APPLN. INFO.: | | | JP 1998-242195 | 19980827 |

ED Entered STN: 14 Mar 2000
 AB The image forming material for the lithog. printing plate, contains (a) an ionic dye having cationic and anionic IR-absorbing structure, (b) a polymeric compound which is insol. to water and soluble to alkaline aqueous solution, (c) a compound generating an acid by heat, and (d) a compound crosslinking with an acid catalyst. The material directly provides a printing plate with high sensitivity, improved development latitude, and good storage stability by exposing to IR laser, a thermal head, etc.
 IT 9003-35-4, Phenol-formaldehyde copolymer
(IR laser-sensitive image forming material containing ionic dye and lithog. printing plate using it)

10/562,361

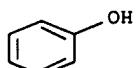
RN 9003-35-4 HCAPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0

CMF C H2 O

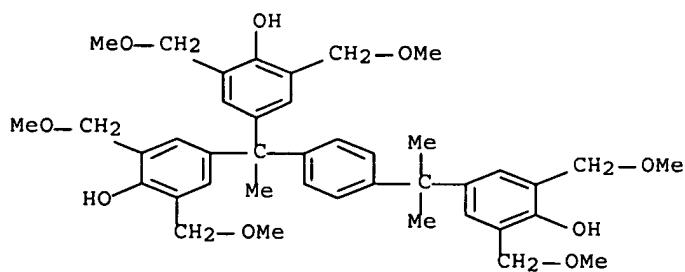


IT 161679-94-3

(crosslinking agent; IR laser-sensitive image forming material containing ionic dye and lithog. printing plate using it)

RN 161679-94-3 HCAPLUS

CN Phenol, 4,4'-(1-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl)ethylidene]bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



IC ICM G03F007-004

ICS B41N001-14; G03F007-00; G03F007-038; G03F007-105

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST IR sensitive resist ionic dye lithog plate; printing plate lithog IR sensitive resists ionic dye

IT Optical materials
Optical materials

(IR absorbers; IR laser-sensitive image forming material containing

ionic dye and lithog. printing plate using it)

IT Lithographic plates
 (IR-laser-sensitive image forming material containing ionic dye and
 lithog. printing plate using it)

IT Phenolic resins, uses
 (IR laser-sensitive image forming material containing ionic dye and
 lithog. printing plate using it)

IT Dyes
 (IR-absorbing; IR laser-sensitive image forming material containing
 ionic dye and lithog. printing plate using it)

IT IR materials
 IR materials
 (absorbers; IR laser-sensitive image forming material containing ionic
 dye and lithog. printing plate using it)

IT Phenolic resins, uses
 (novolak, cresol-based; IR laser-sensitive image forming material
 containing ionic dye and lithog. printing plate using it)

IT 9003-35-4, Phenol-formaldehyde copolymer 27029-76-1,
 m-Cresol-p-cresol-formaldehyde copolymer
 (IR laser-sensitive image forming material containing ionic dye and
 lithog. printing plate using it)

IT 124996-93-6P, Acrylonitrile-N-(p-amino sulfonylphenyl)methacrylamide-
 ethyl methacrylate copolymer 260967-27-9P 260967-28-0P
 260967-29-1P 260967-30-4P 260967-31-5P 260967-32-6P
 .(IR laser-sensitive image forming material containing ionic dye and
 lithog. printing plate using it)

IT 260967-25-7P 260967-26-8P
 (IR-absorbing dye preparation from; IR laser-sensitive image forming
 material containing ionic dye and lithog. printing plate
 using it)

IT 18300-31-7 22734-61-8, 1H-Benz[f]indene-1,3(2H)-dione 68339-59-3
 98826-99-4
 (IR-absorbing dye preparation from; IR laser-sensitive image forming
 material containing ionic dye and lithog. printing plate
 using it)

IT 260967-33-7
 (acid generator; IR laser-sensitive image forming material containing
 ionic dye and lithog. printing plate using it)

IT 161679-94-3
 (crosslinking agent; IR laser-sensitive image forming material
 containing ionic dye and lithog. printing plate using it)

L51 ANSWER 15 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:144538 HCPLUS Full-text
 DOCUMENT NUMBER: 132:201059
 TITLE: Photosensitive resin composition for planographic
 printing plate preparation
 INVENTOR(S): Kunita, Kazuto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 82 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|----------|
| EP 982123 | A2 | 20000301 | EP 1999-114229 | 19990727 |
| EP 982123 | A3 | 20000809 | | |

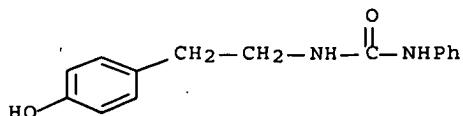
10/562,361

| | | | | |
|--|----|----------|----------------|-------------|
| EP 982123 | B1 | 20040721 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2000062338 | A | 20000229 | JP 1998-237752 | 19980824 |
| JP 3660505 | B2 | 20050615 | | |
| JP 2000075485 | A | 20000314 | JP 1998-243478 | 19980828 |
| JP 3836605 | B2 | 20061025 | | |
| EP 1354701 | A1 | 20031022 | EP 2003-12286 | 19990727 |
| EP 1354701 | B1 | 20060301 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY | | | | |
| JP 2006126869 | A | 20060518 | JP 2006-12491 | 20060120 |
| PRIORITY APPLN. INFO.: | | | JP 1998-237752 | A 19980824 |
| | | | JP 1998-243478 | A 19980828 |
| | | | EP 1999-114229 | A3 19990727 |

ED Entered STN: 03 Mar 2000
GI For diagram(s), see printed CA Issue.
AB Disclosed is a photosensitive resin composition suited for planog. printing plate preparation comprising a phenolic polymer having on a polymer backbone at least a structural unit represented by the formula I (A = an aromatic hydrocarbon ring which may have a substituent group; R1, R2 = H or a hydrocarbon group having ≤12 C atoms; n = an integer of 1-3; r = an integer chosen in accordance with the mol. weight; X = a divalent linking group; Y = a divalent to quadrivalent linking group having at least one partial structure selected from CO, SO₂, PO, C=N, CS, NC=N, NCO, NSO₂, NPO, NCS, CO₂, SO₃, CN, CO₂H, and N+ or a terminal group terminated with H; Z = a monovalent to quadrivalent linking group with the proviso that Z is absent when Y is a terminal group or Z is a terminal group when Y is a linking group) and a mol. weight of ≥1000 and an IR ray-absorbing agent.
IT 259527-83-8 259527-85-0
 (IR-laser photosensitive resin compns. for planog. printing plate preparation containing)
RN 259527-83-8 HCPLUS
CN Urea, N-[2-(4-hydroxyphenyl)ethyl]-N'-phenyl-, polymer with formaldehyde and phenol (9CI). (CA INDEX NAME)

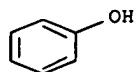
CM 1

CRN 259527-66-7
CMF C15 H16 N2 O2



CM 2

CRN 108-95-2
CMF C6 H6 O



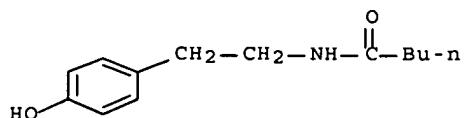
CM 3

CRN 50-00-0
CMF C H2 O $\text{H}_2\text{C}=\text{O}$

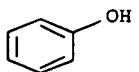
RN 259527-85-0 HCPLUS

CN Pentanamide, N-[2-(4-hydroxyphenyl)ethyl]-, polymer with formaldehyde and phenol (9CI) (CA INDEX NAME)

CM 1

CRN 259527-84-9
CMF C13 H19 N O2

CM 2

CRN 108-95-2
CMF C6 H6 O

CM 3

CRN 50-00-0
CMF C H2 O

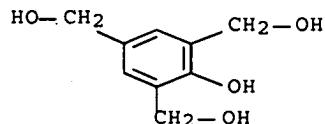
$\text{H}_2\text{C}=\text{O}$

IT 2937-61-3 9003-35-4

(IR-laser photosensitive resin compns. for planog. printing plate preparation containing phenolic polymers and)

RN 2937-61-3 HCPLUS

CN 1,3,5-Benzenetrimethanol, 2-hydroxy- (CA INDEX NAME)

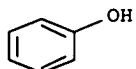


RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C₆ H₆ O

CM 2

CRN 50-00-0

CMF C H₂ O $\text{H}_2\text{C}=\text{O}$

IT 9003-35-4DP, reaction products with phenylisocyanate or butylisocyanate or benzylisocyanate

(preparation and use in IR-laser photosensitive resin compns. for planog. printing plate preparation)

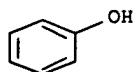
RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0
CMF C H2 O $\text{H}_2\text{C}=\text{O}$

IC ICM B41C001-10
ICS B41M005-36; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)
 ST photosensitive resin compn phenolic polymer planog printing
plate
 IT Phenolic resins, uses
 (IR-laser photosensitive resin compns. for planog. printing
 plate preparation containing phenolic polymers and)
 IT Printing (impact)
 (IR-laser-sensitive resin compns. containing phenolic polymers for
 color proofing in)
 IT Phenolic resins, uses
 (IR-laser-sensitive resin compns. for planog. printing
 plate preparation containing)
 IT Phenolic resins, preparation
 (reaction products with phenylisocyanate or butylisocyanate or
 benzylisocyanate; preparation and use in IR-laser photosensitive resin
 compns. for planog. printing plate preparation)
 IT 259527-67-8
 (9003354IR-laser photosensitive resin compns. for planog.
 printing plate preparation containing)
 IT 259527-65-6 259527-68-9 259527-69-0 259527-71-4 259527-72-5
 259527-74-7 259527-76-9 259527-78-1 259527-79-2 259527-80-5
 259527-81-6 259527-82-7 259527-83-8 259527-85-0
 259527-86-1
 (IR-laser photosensitive resin compns. for planog. printing
 plate preparation containing)
 IT 2937-61-3 9003-35-4 24979-70-2 27029-76-1
 69415-30-1 215253-67-1
 (IR-laser photosensitive resin compns. for planog. printing
 plate preparation containing phenolic polymers and)
 IT 51906-85-5P 259527-66-7P 259527-84-9P 259527-87-2P
 (preparation and reaction in preparing phenolic polymers for photosensitive
 resin compns. for planog. printing plate preparation)
 IT 103-71-9DP, reaction products with phenolic resins or phenol compds.
 111-36-4DP, reaction products with phenolic resins 3173-56-6DP,
 reaction products with phenolic resins 4083-64-1DP, reaction

products with phenolic resins 9003-35-4DP, reaction products with phenylisocyanate or butylisocyanate or benzylisocyanate 24979-70-2DP, reaction products with tosylisocyanate 25086-36-6DP, reaction products with tosylisocyanate 57167-08-5DP, reaction products with tosylisocyanate 200628-49-5DP, reaction products with tosylisocyanate

(preparation and use in IR-laser photosensitive resin compns. for planog. printing plate preparation)

IT 51-67-2 79-30-1 123-30-8 638-29-9, Pentanoyl chloride
(reaction in preparing phenolic polymers for photosensitive resin compns. for planog. printing plate preparation)

L51 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:260022 HCAPLUS Full-text
DOCUMENT NUMBER: 130:318614
TITLE: IR laser-sensitive positive photoimaging material
for offset printing plate preparation
INVENTOR(S): Miyake, Hideo; Kawauchi, Ikuo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd, Japan
SOURCE: Eur. Pat. Appl., 56 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| EP 909657 | A2 | 19990421 | EP 1998-119634 | 19981016 |
| EP 909657 | A3 | 19990519 | | |
| EP 909657 | B1 | 20030618 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 11119418 | A | 19990430 | JP 1997-285754 | 19971017 |
| JP 3771694 | B2 | 20060426 | | |
| EP 1258369 | A2 | 20021120 | EP 2002-15513 | 19981016 |
| EP 1258369 | A3 | 20021204 | | |
| EP 1258369 | B1 | 20050330 | | |
| R: DE, GB | | | | |
| US 6573022 | B1 | 20030603 | US 1998-173719 | 19981016 |
| EP 1437232 | A2 | 20040714 | EP 2004-8648 | 19981016 |
| EP 1437232 | A3 | 20040728 | | |
| EP 1437232 | B1 | 20070103 | | |
| R: DE, GB | | | | |
| EP 1449654 | A1 | 20040825 | EP 2004-10451 | 19981016 |
| R: DE, GB | | | | |
| EP 1449655 | A1 | 20040825 | EP 2004-10452 | 19981016 |
| R: DE, GB | | | | |
| EP 1452335 | A1 | 20040901 | EP 2004-8649 | 19981016 |
| R: DE, GB | | | | |
| EP 1452312 | A1 | 20040901 | EP 2004-10450 | 19981016 |
| R: DE, GB | | | | |
| JP 11218914 | A | 19990810 | JP 1998-322334 | 19981112 |
| JP 3949832 | B2 | 20070725 | | |
| JP 2002196491 | A | 20020712 | JP 2001-376180 | 19981112 |
| JP 3949949 | B2 | 20070725 | | |
| JP 2002251003 | A | 20020906 | JP 2001-398410 | 19981112 |
| JP 3949957 | B2 | 20070725 | | |
| US 6340551 | B1 | 20020122 | US 1999-421535 | 19991020 |
| US 20020081522 | A1 | 20020627 | US 2001-993634 | 20011127 |

10/562,361

| | | | | |
|------------------------|---|----------|----------------|-------------|
| JP 2004145370 | A | 20040520 | JP 2004-45309 | 20040220 |
| JP 2004145371 | A | 20040520 | JP 2004-45310 | 20040220 |
| JP 2004171029 | A | 20040617 | JP 2004-45308 | 20040220 |
| JP 2004157573 | A | 20040603 | JP 2004-57884 | 20040302 |
| JP 2004192011 | A | 20040708 | JP 2004-57885 | 20040302 |
| JP 2004192012 | A | 20040708 | JP 2004-57886 | 20040302 |
| PRIORITY APPLN. INFO.: | | | JP 1997-285754 | A 19971017 |
| | | | JP 1997-313778 | A 19971114 |
| | | | EP 1998-119634 | A3 19981016 |
| | | | EP 2002-15513 | A3 19981016 |
| | | | US 1998-173719 | A3 19981016 |
| | | | JP 1998-322334 | A3 19981112 |

OTHER SOURCE(S): MARPAT 130:318614

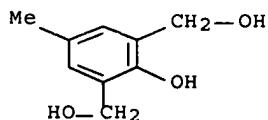
ED Entered STN: 28 Apr 1999

AB The title photoimaging material comprises a substrate, a layer (A) containing no less than 50 weight% of a copolymer which contains, as a copolymer, no less than 10 mol% of at least one of the monomers A-1, A-2, and A-3, wherein A-1 is a monomer having in the mol. a sulfonamido group wherein at least one hydrogen atom is linked to a nitrogen atom, A-2 is a monomer having in the mol. an active imino group represented by the formula -CONHSO₂- , and A-3 is a monomer selected from acrylamide, methacrylamide, acrylates, methacrylates, and hydroxystyrene, which resp. have a phenolic hydroxyl group, and a layer (B) containing no less than 50 weight% of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group. The layers A and B are laminated on the substrate in that order. At least the layer B contains a compound which generates heat upon absorbing IR laser light. The photoimaging material exhibits excellent stability of sensitivity with regard to concentration of a developing solution

IT 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 28934-28-3,
p-Cresol-formaldehyde-phenol copolymer
(IR laser-sensitive pos. photoimaging materials for offset
printing plate preparation containing)

RN 91-04-3 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



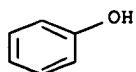
RN 28934-28-3 HCPLUS

CN Formaldehyde, polymer with 4-methylphenol and phenol (CA INDEX NAME)

CM 1

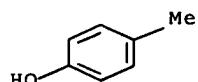
CRN 108-95-2

CMF C₆ H₆ O



CM 2

CRN 106-44-5
 CMF C7 H8 O



CM 3

CRN 50-00-0
 CMF C H2 O



IC ICM B41M005-36
 ICS B41C001-10; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 IT 80-09-1 85-43-8 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol
 104-15-4, uses 127-63-9 1328-54-7, Oil Blue #603 3584-23-4
 5303-25-3, Dodecyl stearate 13249-99-5 27029-76-1,
 m-Cresol-p-cresol-formaldehyde copolymer 28391-39-1
 28934-28-3, p-Cresol-formaldehyde-phenol copolymer
 51241-17-9 62814-37-3, N-(p-Aminosulfonylphenyl)methacrylamide-
 methyl methacrylate copolymer 65697-21-4, Benzyl
 methacrylate-methacrylic acid copolymer 68584-99-6,
 Acetone-pyrogallol copolymer 1,2-naphthoquinonediazido-5-sulfonate
 69415-30-1 85568-56-5, Megafac F-177 117283-53-1 124737-97-9
 134127-48-3 137909-39-8 223561-66-8 223561-68-0
 (IR laser-sensitive pos. photoimaging materials for offset
 printing plate preparation containing)
 IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
 (preparation and reaction in preparing resins for IR laser-sensitive pos.
 photoimaging materials for offset printing plate preparation)
 IT 203179-80-0P, N-(p-Hydroxyphenyl)methacrylamide-ethyl methacrylate
 copolymer 223561-59-9P, N-(p-Aminosulfonylphenyl)methacrylamide-
 ethyl methacrylate copolymer 223561-61-3P, Acrylonitrile-N-(p-
 aminosulfonylphenyl)acrylamide-methyl methacrylate copolymer
 223561-63-5P, Acrylonitrile-methyl methacrylate-N-(p-
 toluenesulfonyl)acrylamide copolymer

(preparation and use in IR laser-sensitive pos. photoimaging materials for offset printing plate preparation)

IT 63-74-1, p-Aminobenzenesulfonamide 79-10-7, 2-Propenoic acid, reactions 79-41-4, reactions 541-41-3, Ethyl chloroformate (reaction in preparing resins for IR laser-sensitive pos. photoimaging materials for offset printing plate preparation)

L51 ANSWER 17 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:156435 HCPLUS Full-text

DOCUMENT NUMBER: 130:175335

TITLE: Image recording material

INVENTOR(S): Kobayashi, Fumikazu; Kitatani, Katsuji; Oshima, Yasuhito

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 50 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

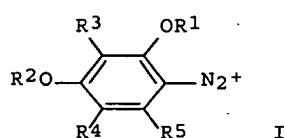
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| EP 899614 | A1 | 19990303 | EP 1998-116192 | 19980827 |
| EP 899614 | B1 | 20020109 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 11133594 | A | 19990521 | JP 1998-8249 | 19980120 |
| JP 3805519 | B2 | 20060802 | | |
| US 6162574 | A | 20001219 | US 1998-140347 | 19980826 |
| PRIORITY APPLN. INFO.: | | | JP 1997-234406 | A 19970829 |
| | | | JP 1998-8249 | A 19980120 |

OTHER SOURCE(S): MARPAT 130:175335

ED Entered STN: 10 Mar 1999

GI



AB An image recording material comprises at least a diazonium salt represented by the general formula I (R1, R2 = a hydrocarbon group having less than 20 carbon atoms; R3, R4 = H or a hydrocarbon group having less than 20 carbon atoms; R5 = H or alkyloxy, aryloxy, or aralkyloxy group having less than 20 carbon atoms; and X = F-, Cl-, Br-, I-, ClO4-, BF-, PF6-, SbF6-, AsF6-, or an alkyl- or arylsulfonate anion), an IR-absorbing agent, a crosslinking agent, and a binder. The image recording material enables direct planog. printing plate production from digital computer signals by conducting recording by using an IR laser. Further, the image recording material has excellent storability.

IT 9003-35-4, Formaldehyde-phenol copolymer 161679-94-3
162846-57-3

10/562,361

(IR-sensitive recording materials for planog.
printing plate preparation containing diazonium compds. and)

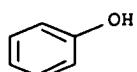
RN 9003-35-4 HCAPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

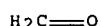
CMF C6 H6 O



CM 2

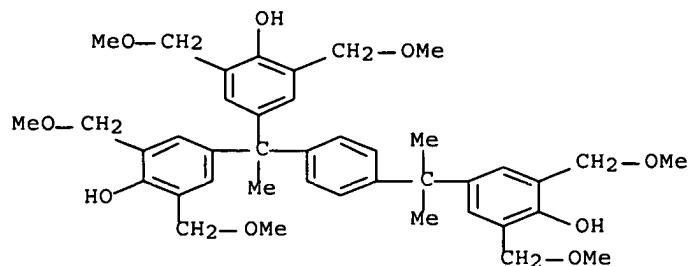
CRN 50-00-0

CMF C H2 O



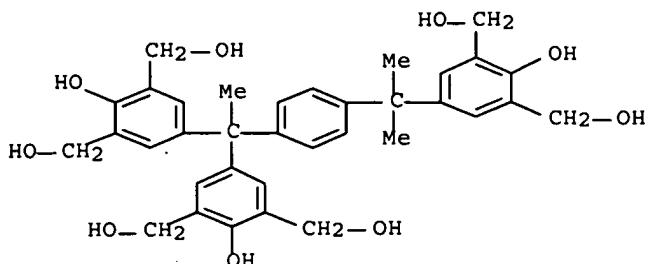
RN 161679-94-3 HCAPLUS

CN Phenol, 4,4'-(1-[4-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



RN 162846-57-3 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-(1-[4-[1-[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2-hydroxy- (CA INDEX NAME)

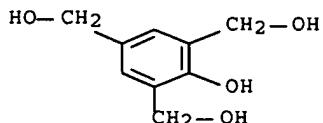


IT 2937-61-3P

(preparation and reaction in preparing crosslinking agent for IR recording materials for planog. printing plate preparation)

RN 2937-61-3 HCPLUS

CN 1,3,5-Benzenetrimethanol, 2-hydroxy- (CA INDEX NAME)

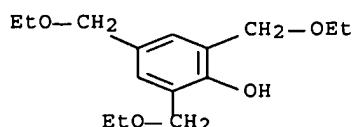


IT 215253-58-0P

(preparation and use as crosslinking agent for IR recording materials for planog. printing plate preparation)

RN 215253-58-0 HCPLUS

CN Phenol, 2,4,6-tris(ethoxymethyl)- (CA INDEX NAME)

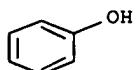


IT 108-95-2, Phenol, reactions

(reaction in preparing crosslinking agent for IR recording materials for planog. printing plate preparation)

RN 108-95-2 HCPLUS

CN Phenol (CA INDEX NAME)



IC ICM G03F007-016
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)
 ST IR recording material diazonium planog plate
 IT Diazonium compounds
 (IR-sensitive recording materials for planog.
 printing plate preparation containing)
 IT Phenolic resins, uses
 (IR-sensitive recording materials for planog.
 printing plate preparation containing diazonium compds. and)
 IT Optical recording materials
 Photoimaging materials
 (IR; containing diazonium compds. for planog. printing plate
 preparation)
 IT Printing plates
 (planog.; IR-sensitive recording materials containing
 diazonium compds. for preparation of)
 IT 9003-35-4, Formaldehyde-phenol copolymer 23178-67-8
 24979-70-2, Poly(p-hydroxystyrene) 69415-30-1 161679-94-3
 162846-57-3 201024-57-9 211991-63-8
 (IR-sensitive recording materials for planog.
 printing plate preparation containing diazonium compds. and)
 IT 90-72-2P 2219-90-1P 2937-61-3P
 (preparation and reaction in preparing crosslinking agent for IR
 recording materials for planog. printing plate
 preparation)
 IT 220476-27-7P, 2-Nitro-1,3,5-triethoxybenzene 220476-28-8P,
 2,4,6-Triethoxyaniline hydrochloride 220476-29-9P,
 4,6-Bis(octyloxy)-2-hydroxyacetophenone 220476-30-2P,
 4,6-Bis(octyloxy)-2-methoxyacetophenone 220476-31-3P,
 4,6-Bis(octyloxy)-2-methoxyacetophenone oxime 220476-32-4P,
 4,6-Bis(octyloxy)-2-methoxyacetanilide
 (preparation and reaction in preparing diazonium salt for IR
 recording materials for planog. printing plate
 preparation)
 IT 215253-58-0P
 (preparation and use as crosslinking agent for IR recording
 materials for planog. printing plate preparation)
 IT 220476-34-6P 220476-36-8P 220476-38-0P 220476-39-1P
 220476-41-5P 220476-42-6P 220476-43-7P 220476-46-0P
 220476-48-2P 220476-49-3P 220476-50-6P 220476-51-7P,
 2,4,6-Triethoxybenzenediazonium mesitylenesulfonate
 (preparation and use in IR recording materials for planog.
 printing plate preparation)
 IT 108-95-2, Phenol, reactions 124-40-3, Dimethylamine,
reactions 30525-89-4, Paraformaldehyde
 (reaction in preparing crosslinking agent for IR recording
 materials for planog. printing plate preparation)
 IT 108-73-6, 1,3,5-Benzenetriol 111-83-1, Octyl bromide 480-66-0
 4065-45-6, 2-Hydroxy-4-methoxybenzophenone-5-sulfonic acid
 16600-92-3, 2-Nitro-1,3,5-benzenetriol
 (reaction in preparing diazonium salt for IR recording
 materials for planog. printing plate preparation)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

10/562,361

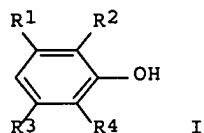
ACCESSION NUMBER: 1998:685232 HCAPLUS Full-text
DOCUMENT NUMBER: 130:8921
TITLE: Negative-working image-recording
material useful as lithographic plate
INVENTOR(S): Kobayashi, Fumikazu
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10282663 | A | 19981023 | JP 1997-85295 | 19970403 |
| JP 3822311 | B2 | 20060920 | | |
| PRIORITY APPLN. INFO.: | | | JP 1997-85295 | 19970403 |

OTHER SOURCE(S): MARPAT 130:8921

ED Entered STN: 29 Oct 1998

GI



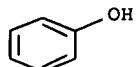
AB The title material contains (a) an acid-generating agent that generates acid upon light irradiation or heating, (b) an acid-crosslinking agent, (c) an alkali-soluble resin, (d) an IR-absorbing agent, and (e) a phenolic compound I ($R1-4 = H, OH, \text{halo}, \text{alkyl}, \text{alkoxy}, \text{hydroxymethyl}, \text{hydroxyethyl}, \text{formyl}, \text{acetyl}$, ≥ 2 of $R1-4$ are not hydroxymethyl or hydroxyethyl at the same time) 2-20 weight% of the total solids. The material is capable of direct platemaking from digital data by using IR ray lasers and shows high sensitivity in recording.

IT 108-95-2, Phenol, uses

(IR-sensitive lithog. plate containing acid generator, crosslinking compound, IR absorbent, and phenolic compound)

RN 108-95-2 HCAPLUS

CN Phenol (CA INDEX NAME)



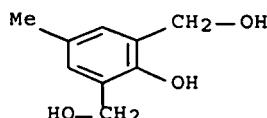
IT 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 161679-94-3

10/562,361

(crosslinking agent; IR-sensitive lithog. plate containing acid generator, crosslinking compound, IR absorbent, and phenolic compound)

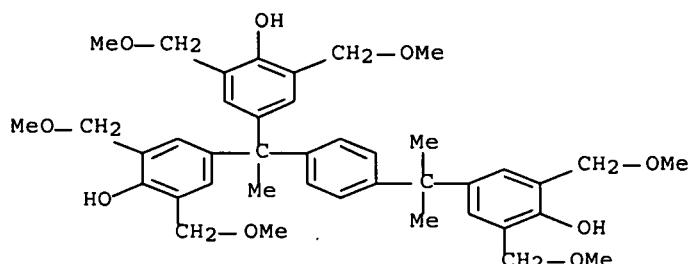
RN 91-04-3 HCAPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



RN 161679-94-3 HCAPLUS

CN Phenol, 4,4'-(1-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl)ethylidene]bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



IC ICM G03F007-038

ICS B41C001-055; B41N001-14; G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 95-57-8, o-Chlorophenol 108-39-4, m-Cresol, uses 108-95-2, Phenol, uses 150-19-6, m-Methoxyphenol

(IR-sensitive lithog. plate containing acid generator, crosslinking compound, IR absorbent, and phenolic compound)

IT 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 161679-94-3
(crosslinking agent; IR-sensitive lithog. plate containing acid generator, crosslinking compound, IR absorbent, and phenolic compound)

L51 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:685224 HCAPLUS Full-text

DOCUMENT NUMBER: 130:8919

TITLE: Negative-working image-forming material useful for lithographic plate

INVENTOR(S): Kobayashi, Fumikazu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

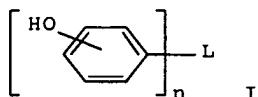
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10282654 | A | 19981023 | JP 1997-88396 | 19970407 |
| JP 3836563 | B2 | 20061025 | | |
| PRIORITY APPLN. INFO.: | | | JP 1997-88396 | 19970407 |

OTHER SOURCE(S): MARPAT 130:8919

ED Entered STN: 29 Oct 1998

GI



AB The title material contains (a) an acid-generating agent that generates acid upon light irradiation or heating, (b) a crosslinking agent that crosslinks by acid, (c) an alkali-soluble resin, (d) an IR-absorbing agent, and (e) a phenolic compound with mol. weight ≤ 1200 I (L = linking group with n valences comprising alkyl, aryl or a combination of these groups, single bond; n = 2-7). The material capable of direct platemaking from digital data by using IR ray lasers shows high sensitivity in recording and the resulting printing plate provides high quality printing without greasing.

IT 9003-35-4, Formaldehyde-phenol copolymer 103250-84-6
, m-Cresol-p-cresol-phenol copolymer
(IR-sensitive lithog. plate containing phenolic compound)

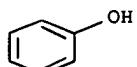
RN 9003-35-4 HCAPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0

CMF C H2 O

 $\text{H}_2\text{C}=\text{O}$

10/562,361

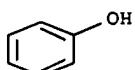
RN 103250-84-6 HCAPLUS

CN Phenol, 3-methyl-, polymer with 4-methylphenol and phenol (9CI) (CA INDEX NAME)

CM 1

CRN 108-95-2

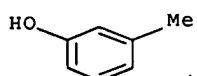
CMF C6 H6 O



CM 2

CRN 108-39-4

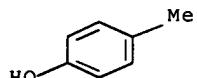
CMF C7 H8 O



CM 3

CRN 106-44-5

CMF C7 H8 O

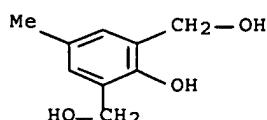


IT 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 161679-94-3

(crosslinking agent; IR-sensitive lithog. plate containing phenolic compound)

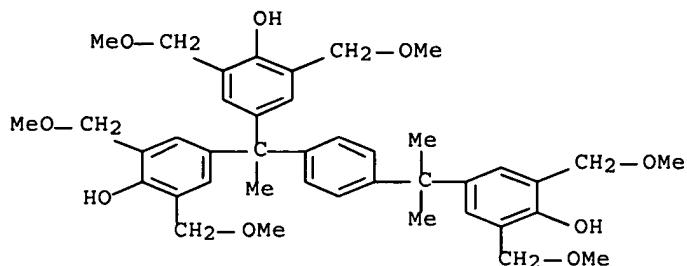
RN 91-04-3 HCAPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



RN 161679-94-3 HCPLUS

CN Phenol, 4,4'-(1-[4-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)]



IC ICM G03F007-004

ICS G03F007-004; B41C001-055; B41N001-14; G03F007-00; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9003-35-4, Formaldehyde-phenol copolymer 103250-84-6
, m-Cresol-p-cresol-phenol copolymer

(IR-sensitive lithog. plate containing phenolic compound)

IT 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 161679-94-3
(crosslinking agent; IR-sensitive lithog. plate containing phenolic compound)

L51 ANSWER 20 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:685223 HCPLUS Full-text

DOCUMENT NUMBER: 130:8918

TITLE: Negative-working image-forming material useful for lithographic plate

INVENTOR(S): Aoshima, Katsataro; Nakamura, Ippei

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10282653 | A | 19981023 | JP 1997-85296 | 19970403 |
| PRIORITY APPLN. INFO.: | | | JP 1997-85296 | 19970403 |

ED Entered STN: 29 Oct 1998

AB The title material, containing an acid-crosslinking compound, a binder polymer, a compound generating acid upon heating, and an IR-absorbing agent, employs ≥ 1 compound $\text{Ar}_1(\text{OH})^k[\text{CR}_1\text{R}_2\text{O}(\text{CR}_3\text{R}_4\text{CR}_5\text{R}_6\text{O})^n\text{R}_7]^m$ [$\text{Ar}_1 = (\text{substituted})$ aromatic hydrocarbon ring; $\text{R}_1-\text{R}_6 = \text{H or C}\leq 12$ aliphatic hydrocarbon; $\text{R}_7 = \text{H or C}\leq 12$ hydrocarbon; $n, k = 1-3; m = 2-4$] for the acid-crosslinking compound. The material is capable of direct platemaking from digital data by using IR lasers and shows high sensitivity in recording.

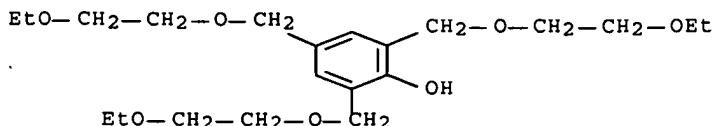
IT 215777-47-2P 215777-48-3P

10/562,361

(neg.-working lithog. plate containing phenol derivative acid-crosslinking compound, acid generator, and IR absorbent)

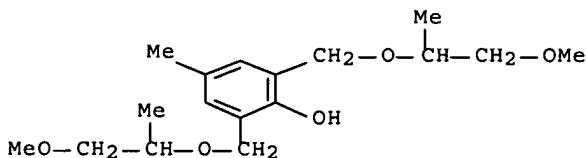
RN 215777-47-2 HCPLUS

CN Phenol, 2,4,6-tris[(2-ethoxyethoxy)methyl]- (CA INDEX NAME)



RN 215777-48-3 HCPLUS

CN Phenol, 2,6-bis[(2-methoxy-1-methylethoxy)methyl]-4-methyl- (CA INDEX NAME)

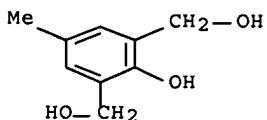


IT 91-04-3P, 2,6-Bishydroxymethyl-p-cresol

(preparation of phenol derivative acid-crosslinking compound)

RN 91-04-3 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)

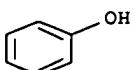


IT 108-95-2, Phenol, reactions

(preparation of phenol derivative acid-crosslinking compound)

RN 108-95-2 HCPLUS

CN Phenol (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-004; B41C001-055; G03F003-10; G03F007-00; G03F007-038;

H01L021-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)

IT 215777-47-2P 215777-48-3P 215777-49-4P
215777-50-7P
(neg.-working lithog. plate containing phenol derivative acid-crosslinking
compound, acid generator, and IR absorbent)

IT 90-72-2P 91-04-3P, 2,6-Bishydroxymethyl-p-cresol
2219-90-1P
(preparation of phenol derivative acid-crosslinking compound)

IT 50-00-0, Formaldehyde, reactions 106-44-5, reactions 107-98-2,
1-Methoxy-2-propanol 108-24-7 108-95-2, Phenol, reactions
110-80-5, 2-Ethoxyethanol 124-40-3, Dimethylamine, reactions
(preparation of phenol derivative acid-crosslinking compound)

L51 ANSWER 21 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:106203 HCPLUS Full-text

DOCUMENT NUMBER: 128:198666

ORIGINAL REFERENCE NO.: 128:39149a,39152a

TITLE: Negative-working presensitized lithographic plate
useful for direct platemaking

INVENTOR(S): Kobayashi, Fumikazu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 10039509 | A | 19980213 | JP 1996-192517 | 19960722 |
| JP 3645362 | B2 | 20050511 | | |
| US 5965319 | A | 19991012 | US 1997-891834 | 19970714 |
| PRIORITY APPLN. INFO.: | | | JP 1996-192517 | A 19960722 |

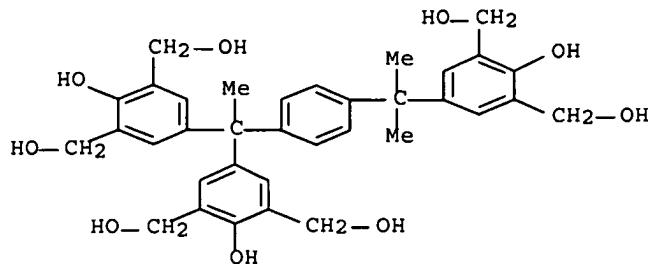
ED Entered STN: 21 Feb 1998

AB The title material contains an onium salt having sulfonic acid as a counter ion, a crosslinking agent that crosslinks by the action of acids, a polymer having alkali-soluble groups, and an IR absorbent. The material is capable of platemaking directly from digital data using IR lasers and shows good storage stability, broader latitude in the condition of heat treatment after exposure, and high printing durability.

IT 162846-57-3P
(preparation of crosslinking agent)

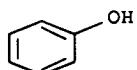
RN 162846-57-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(1-[4-[1-[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2-hydroxy- (CA INDEX NAME)



IT 9003-35-4, Formaldehyde-phenol copolymer
 (presensitized lithog. plate containing onium sulfonate, crosslinking agent, alkali-soluble resin, and IR absorbent)
 RN 9003-35-4 HCAPLUS
 CN Phenol, polymer with formaldehyde (CA INDEX NAME)

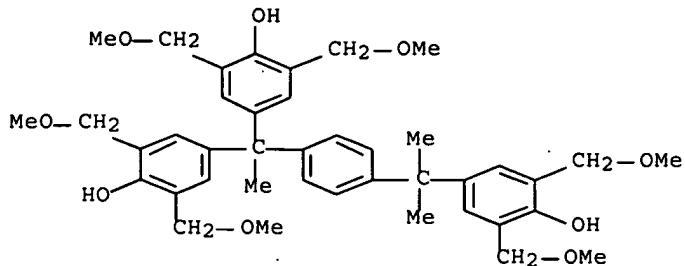
CM 1

CRN 108-95-2
CMF C6 H6 O

CM 2

CRN 50-00-0
CMF C H2 O

IT 161679-94-3P
 (presensitized lithog. plate containing onium sulfonate, crosslinking agent, alkali-soluble resin, and IR absorbent)
 RN 161679-94-3 HCAPLUS
 CN Phenol, 4,4'-(1-[4-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



IC ICM G03F007-029
 ICS B41C001-055
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 IT 162846-57-3P
 (preparation of crosslinking agent)
 IT 9003-35-4, Formaldehyde-phenol copolymer 25085-75-0,
 Bisphenol A-formaldehyde copolymer 66003-76-7, Diphenyliodonium
 trifluoromethanesulfonate 66003-78-9, Triphenylsulfonium
 trifluoromethanesulfonate
 (presensitized lithog. plate containing onium sulfonate, crosslinking
 agent, alkali-soluble resin, and IR absorbent)
 IT 87263-95-4P 137308-86-2P 137309-10-5P 137309-11-6P
 161679-94-3P 166658-57-7P
 (presensitized lithog. plate containing onium sulfonate, crosslinking
 agent, alkali-soluble resin, and IR absorbent)

L51 ANSWER 22 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1997:69495 HCPLUS Full-text
 DOCUMENT NUMBER: 126:96954
 ORIGINAL REFERENCE NO.: 126:18585a,18588a
 TITLE: Negative-working image recording
 material for offset printing
 INVENTOR(S): Kobayashi, Fumikazu; Mizutani, Kazuyoshi; Aoshima,
 Keitaro
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------------|-----------------|----------|
| JP 08276558 | A | 19961022 | JP 1995-330618 | 19951219 |
| JP 3515846 | B2 | 20040405 | | |
| US 6132935 | A | 20001017 | US 1996-691371 | 19960802 |
| EP 780239 | A2 | 19970625 | EP 1996-112679 | 19960806 |
| EP 780239 | A3 | 19980819 | | |
| EP 780239 | B1 | 20011107 | | |
| R: DE, GB | | | | |
| PRIORITY APPLN. INFO.: | | JP 1995-18120 | A 19950206 | |
| | | JP 1995-330618 | A 19951219 | |

ED Entered STN: 31 Jan 1997

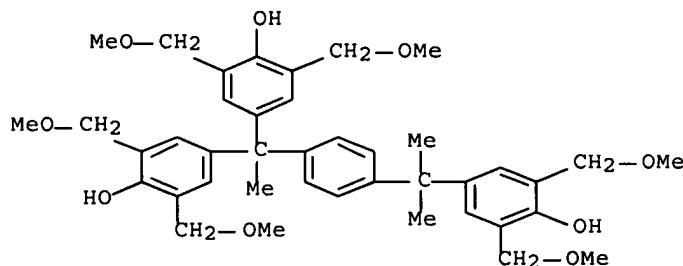
AB The title neg.-working image recording material contains a light-absorbing substance which will generate heat on exposure to light, a resin which is insol. in water but soluble in an alkaline aqueous solution, and a phenolic derivative which has 4-8 benzene nuclei, ≥ 1 phenolic OH's, and ≥ 2 -CH₂OR₁ (R₁ = alkyl, acyl) groups in its mol. This image recording material is suitable for direct platemaking using near IR and IR.

IT 161679-94-3P 185502-11-8P 185502-12-9P
 185502-13-0P 185502-14-1P 185502-15-2P
 185502-16-3P 185502-17-4P 185502-19-6P
 185502-20-9P

(neg.-working image recording material from)

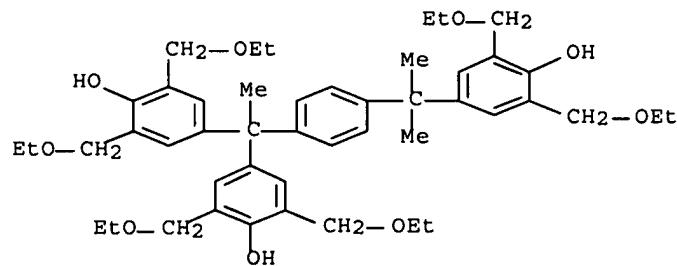
RN 161679-94-3 HCAPLUS

CN Phenol, 4,4'-(1-[4-[1-[4-hydroxy-3,5-bis(methoxymethyl)phenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(methoxymethyl)- (CA INDEX NAME)



RN 185502-11-8 HCAPLUS

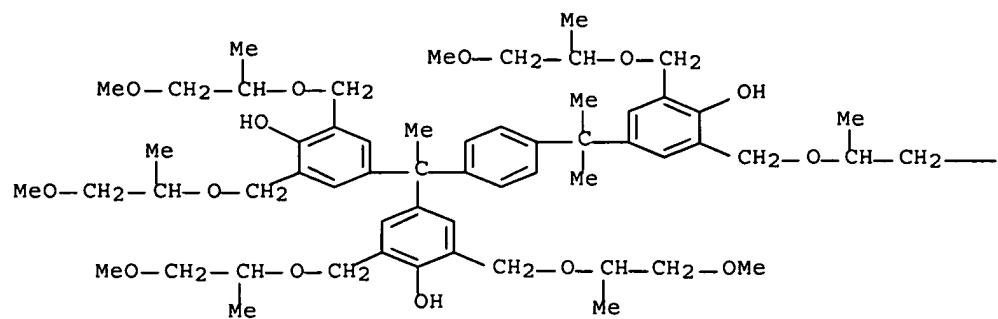
CN Phenol, 4,4'-(1-[4-[1-[3,5-bis(ethoxymethyl)-4-hydroxyphenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis(ethoxymethyl)- (9CI) (CA INDEX NAME)



RN 185502-12-9 HCAPLUS

CN Phenol, 4,4'-(1-[4-[1-[4-hydroxy-3,5-bis[(2-methoxy-1-methylethoxy)methyl]phenyl]-1-methylethyl]phenyl]ethylidene)bis[2,6-bis[(2-methoxy-1-methylethoxy)methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

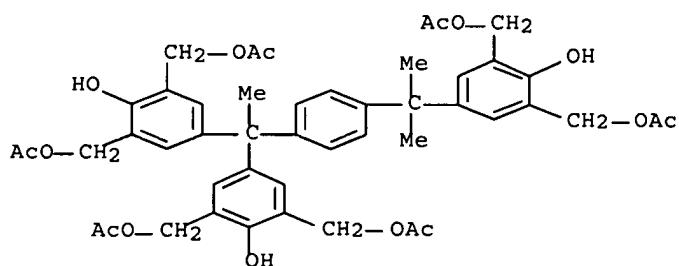


PAGE 1-B

—OMe

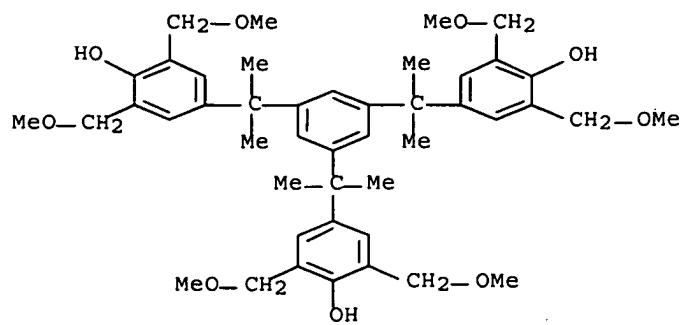
RN 185502-13-0 HCAPLUS

CN 1,3-Benzenedimethanol, 5,5'-[1-[4-[1-[3,5-bis[(acetyloxy)methyl]-4-hydroxyphenyl]-1-methylethyl]phenyl]ethylidene]bis[2-hydroxy-,
 $\alpha,\alpha',\alpha'',\alpha'''$ -tetraacetate (9CI) (CA INDEX
NAME)



RN 185502-14-1 HCAPLUS

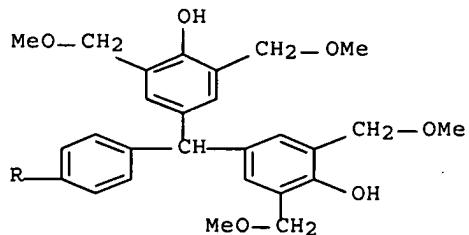
CN Phenol, 4,4',4''-[1,3,5-benzenetriyltris(1-methylethylidene)]tris[2,6-bis(methoxymethyl)- (CA INDEX NAME)



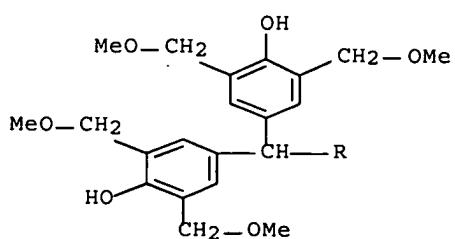
RN 185502-15-2 HCAPLUS

CN Phenol, 4,4',4'',4'''-(1,4-phenylenedimethylidyne)tetrakis[2,6-bis(methoxymethyl)- (9CI) (CA INDEX NAME)]

PAGE 1-A



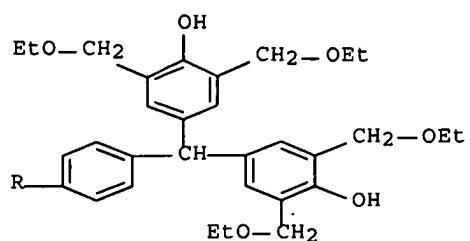
PAGE 2-A



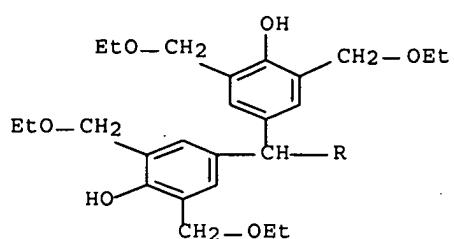
RN 185502-16-3 HCAPLUS

CN Phenol, 4,4',4'',4'''-(1,4-phenylenedimethylidyne)tetrakis[2,6-bis(ethoxymethyl)- (9CI) (CA INDEX NAME)]

PAGE 1-A



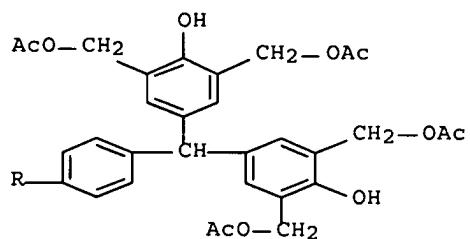
PAGE 2-A

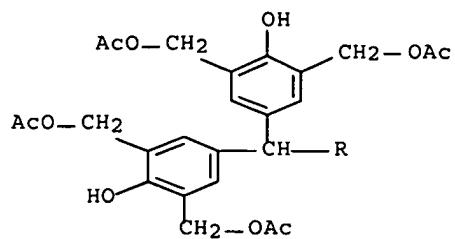


RN 185502-17-4 HCPLUS

CN 1,3-Benzenedimethanol, 5,5',5'',5''''-(1,4-phenylenedimethylidyne)tetraakis[2-hydroxy-,
 $\alpha,\alpha',\alpha'',\alpha''',\alpha''''',\alpha''''''',\alpha$
 $\alpha''''''',\alpha'''''''-octaacetate$ (9CI) (CA INDEX NAME)

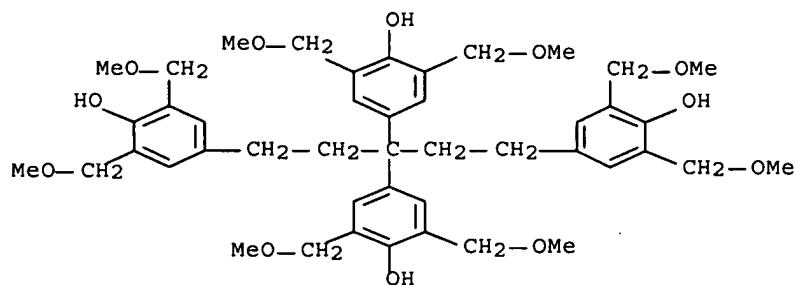
PAGE 1-A





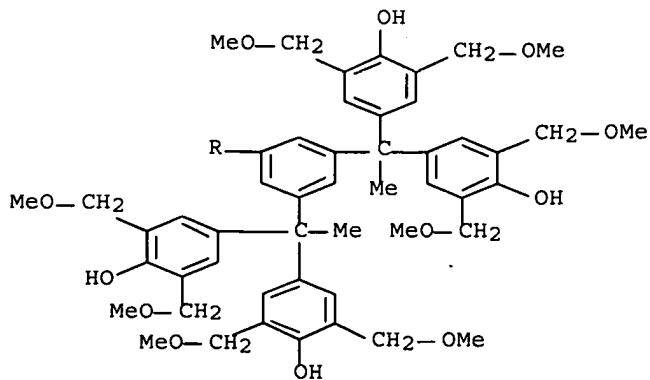
RN 185502-19-6 HCAPLUS

CN Phenol, 4,4',4'',4''',4''''-(1,5-pentanediyyl-3-ylidene)tetrakis[2,6-bis(methoxymethyl)- (9CI) (CA INDEX NAME)

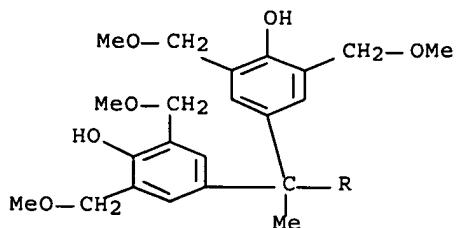


RN 185502-20-9 HCAPLUS

CN Phenol, 4,4',4'',4''',4'''',4'''''-(1,3,5-benzenetriyltriethylidene)hexakis[3,5-bis(methoxymethyl)- (9CI) (CA INDEX NAME)



PAGE 2-A



IT 9003-35-4, Formaldehyde phenol copolymer
 (neg.-working image recording material from)

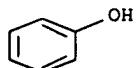
RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0

CMF C H2 O



IC ICM B41C001-05
 ICS G03F007-00; G03F007-038; G03F007-20.
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 ST neg working offset printing imaging material; lithog offset
 platemaking imaging material
 IT Carbon black, uses
 Phenolic resins, uses
 (neg.-working image recording material from)

IT Lithographic plates
 (offset; neg.-working image recording material for)
 IT 51866-54-7P 110726-32-4P 147170-12-5P 152151-64-9P
 161679-94-3P 185502-11-8P 185502-12-9P
 185502-13-0P 185502-14-1P 185502-15-2P
 185502-16-3P 185502-17-4P 185502-18-5P

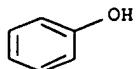
185502-19-6P 185502-20-9P
 (neg.-working image recording material from)
 IT 4466-18-6 18066-45-0 76937-83-2 110726-28-8 148452-55-5
 (neg.-working image recording material from)
 IT 9003-35-4, Formaldehyde phenol copolymer 53655-17-7
 55281-19-1 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
 174568-71-9 174568-79-7 185502-21-0 185502-22-1 185502-23-2
 (neg.-working image recording material from)

L51 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1991:644162 HCAPLUS Full-text
 DOCUMENT NUMBER: 115:244162
 ORIGINAL REFERENCE NO.: 115:41393a,41396a
 TITLE: Optical recording medium
 INVENTOR(S): Brosius, Sibylle; Feuerherd, Karl Heinz; Harten,
 Ulrich; Schmitt, Michael; Schomann, Klaus Dieter;
 Kuppelmaier, Harald
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Ger. Offen., 5 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| DE 3935877 | A1 | 19910502 | DE 1989-3935877 | 19891027 |
| JP 03264391 | A | 19911125 | JP 1990-287401 | 19901026 |
| PRIORITY APPLN. INFO.: | | | DE 1989-3935877 | A 19891027 |

ED Entered STN: 29 Nov 1991
 AB In an optical recording medium comprising a carrier and a light-absorbing layer consisting essentially of a soluble mixture of a thermoplastic binder and ≥1 dye, the binder is a soluble phenol-aldehyde co-condensate with a d.p. >40 and the concentration of unreacted phenol component is 0.05-5%.
 IT 9003-35-4, Phenol-formaldehyde copolymer 29894-96-0
 137147-48-9
 (binder, in optical recording media)
 RN 9003-35-4 HCAPLUS
 CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2
CMF C6 H6 O

CM 2

CRN 50-00-0

10/562,361

CMF C H₂ O

H₂C=O

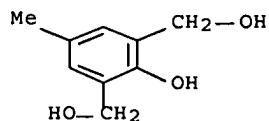
RN 29894-96-0 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl-, polymer with
4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 91-04-3

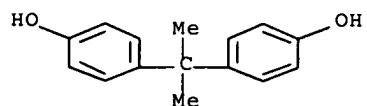
CMF C₉ H₁₂ O₃



CM 2

CRN 80-05-7

CMF C₁₅ H₁₆ O₂



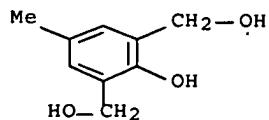
RN 137147-48-9 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl-, polymer with
2-methoxyphenol (9CI) (CA INDEX NAME)

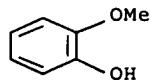
CM 1

CRN 91-04-3

CMF C₉ H₁₂ O₃



CM 2

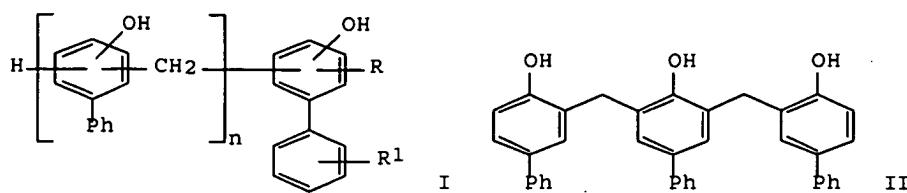
CRN 90-05-1
CMF C7 H8 O2

IC ICM G11B007-24
ICS B32B027-42; B32B027-18; C09D161-06
ICA C09D007-12; C09B057-00; C09B023-00; C09B047-04; C09B001-00;
C09B029-00; C09B045-00
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)
ST optical recording medium; phenol aldehyde thermoplastic
binder optical recording
IT Recording materials
(optical, thermoplastic binders for, from phenol-aldehyde
co-condensates)
IT Binding materials
(thermoplastic, from phenol-aldehyde co-condensates, for optical
recording materials)
IT 9003-35-4, Phenol-formaldehyde copolymer 25086-36-6,
m-Cresol-formaldehyde copolymer 29894-96-0
137147-48-9
(binder, in optical recording media)

L51 ANSWER 24 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:46926 HCPLUS Full-text
DOCUMENT NUMBER: 108:46926
ORIGINAL REFERENCE NO.: 108:7681a,7684a
TITLE: Thermal recording materials
INVENTOR(S): Abe, Toshiyuki; Yoshikawa, Katsumasa; Gonda,
Michihiro; Kanasugi, Mikiko
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 62167082 | A | 19870723 | JP 1986-9028 | 19860121 |
| PRIORITY APPLN. INFO.: | | | JP 1986-9028 | 19860121 |

ED Entered STN: 06 Feb 1988
GI

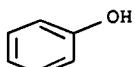


AB The title material contains a dye developer selected from ≥ 1 phenolic compound of the formula I ($R, R_1 = H, C_1-5$ alkyl, C_1-5 alkoxy, halo; $n = 1-9$) in the recording layer. The thermal recording materials exhibit good sensitivity, moisture resistance, and fastness to oils and plasticizers and prevent whitening phenomena. Thus, a paper support was coated with a dispersion containing 2-o-chloroanilino-6-dibutylaminofluoran, II, $Al(OH)_3$, and poly(vinyl alc.) to give a thermal recording paper giving high quality images with good keeping qualities.

IT 108-95-2D, derivs. 81535-95-7 81536-06-3
112259-14-0
(thermal recording materials containing fluoran derivative color former and color developer from)

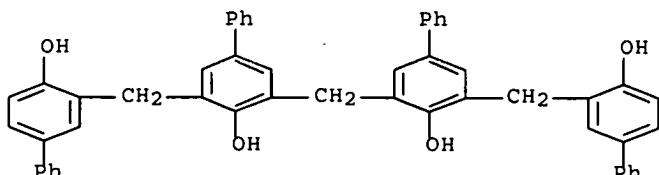
RN 108-95-2 HCPLUS

CN Phenol (CA INDEX NAME)



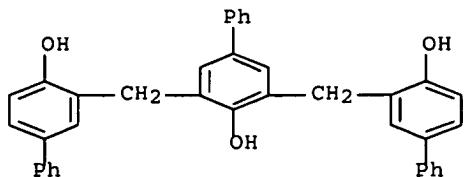
RN 81535-95-7 HCPLUS

CN [1,1'-Biphenyl]-4-ol, 3,3''-methylenebis[5-[(4-hydroxy[1,1'-biphenyl]-3-yl)methyl]- (9CI) (CA INDEX NAME)



RN 81536-06-3 HCPLUS

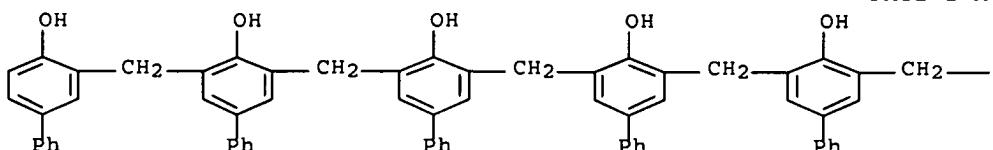
CN [1,1'-Biphenyl]-4-ol, 3,5-bis[(4-hydroxy[1,1'-biphenyl]-3-yl)methyl]- (CA INDEX NAME)



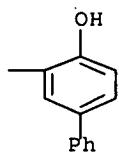
RN 112259-14-0 HCAPLUS

CN [1,1'-Biphenyl]-4-ol, 3,3'''-methylenebis[5-[[4-hydroxy-5-[(4-hydroxy[1,1'-biphenyl]-3-yl)methyl][1,1'-biphenyl]-3-yl]methyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM B41M005-18

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)ST thermal recording material color developer; phenolic compd
thermal printing materialIT Printing, nonimpact
(thermal, phenolic compds. as color developers for materials for)IT 108-95-2D, derivs. 25820-85-3 81535-95-7
81536-06-3 112259-14-0(thermal recording materials containing fluoran derivative color
former and color developer from)IT 29512-49-0 55250-84-5 70516-41-5 82137-81-3
(thermal recording materials containing phenolic compound color
developer and color former from)

L51 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:25533 HCAPLUS Full-text

DOCUMENT NUMBER: 98:25533

ORIGINAL REFERENCE NO.: 98:3899a,3902a

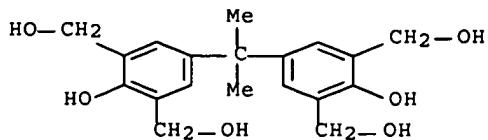
TITLE: Quinonediazide type printing plates with
halogenated novolak resin.

INVENTOR(S): Stahlhofen, Paul

PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
 SOURCE: Ger. Offen., 23 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------------------------|------|----------|-----------------|------------|
| DE 3107109 | A1 | 19820909 | DE 1981-3107109 | 19810226 |
| EP 59250 | A1 | 19820908 | EP 1981-109000 | 19811027 |
| EP 59250 | B1 | 19850904 | | |
| R: AT, BE, CH, DE, FR, GB, IT, NL, SE | | | | |
| AT 15412 | T | 19850915 | AT 1981-109000 | 19811027 |
| CA 1183379 | A1 | 19850305 | CA 1982-395918 | 19820210 |
| ZA 8200959 | A | 19830126 | ZA 1982-959 | 19820215 |
| AU 8280579 | A | 19820902 | AU 1982-80579 | 19820218 |
| US 4404272 | A | 19830913 | US 1982-351479 | 19820223 |
| FI 8200632 | A | 19820827 | FI 1982-632 | 19820224 |
| BR 8200994 | A | 19830104 | BR 1982-994 | 19820225 |
| ES 509912 | A1 | 19840501 | ES 1982-509912 | 19820225 |
| JP 57157238 | A | 19820928 | JP 1982-29143 | 19820226 |
| JP 02023859 | B | 19900525 | | |
| PRIORITY APPLN. INFO.: | | | DE 1981-3107109 | A 19810226 |
| | | | EP 1981-109000 | A 19811027 |

ED Entered STN: 12 May 1984
 AB For superior resistivity to aromatic solvents, aqueous alkaline developer, and alc.-containing damping solns., novolak resins of mol. weight 800-5000 containing 10-30% Cl or 15-50% Br, especially in the meta- or para-position of the phenolic group, are used a binder in neg.- or, especially, pos.-working <10 μ printing plate coatings on an Al support. The resins are obtained by condensing a halogenated phenol with HCHO and an acid catalyst at 80-130° in an organic solvent medium in 0.5-4 h, or by halogenating com. cresol-novolak resins in AcOH at 100°. They may be used in combination with nonhalogenated resins and 0-20% of other types. Thus, an anodized Al plate was coated at 2.0 g/m² (dry) with a solution of (in parts) ester from 1 mol 2,3,4-trihydroxybenzophenone and 2 mol naphthoquinone-(1,2)-diazide- (2)-5-sulfonyl chloride 1.00, naphthoquinone-(1,2)-diazide-(2)-4- sulfonyl chloride 0.14, brominated cresol-HCHO novolak (Br 39%; softening 95-110°) 2.50, nonhalogenated novolak (softening 105-120°) 3.50, crystal violet 0.06, MeOC₂H₄OH 40, and THF 50 parts. Exposure through a pos. transparency and removal of the exposed areas with an aqueous solution of Na₂SiO₃, Na₃PO₄, and NaH₂PO₄ resulted in a plate yielding 200,000 copies in an offset press.
 IT 3957-22-0
 (photosensitive composition containing halogenated novolak binder and, for printing plate preparation)
 RN 3957-22-0 HCAPLUS
 CN 1,3-Benzenedimethanol, 5,5'-(1-methylethylidene)bis[2-hydroxy- (CA INDEX NAME)



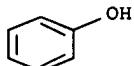
IT 9003-35-4D, brominated
 (photosensitive composition containing quinonediazide and, as binder, for
 printing plate preparation)

RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2
 CMF C6 H6 O



CM 2

CRN 50-00-0
 CMF C H2 O



IC G03C001-495; G03C001-71; G03F007-08; G03F007-26
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)

ST halogenated novolak quinonediazide printing plate*

IT Phenolic resins, uses and miscellaneous
 (novolak, halogenated, photosensitive composition containing quinonediazide
 and, for printing plate preparation)

IT 3957-22-0 31001-73-7 38686-70-3 71510-01-5 81125-13-5
 84077-87-2
 (photosensitive composition containing halogenated novolak binder and, for
 printing plate preparation)

IT 36451-09-9 53050-67-2
 (photosensitive composition containing halogenated novolak resin binder
 and,
 for printing plate preparation)

IT 9003-35-4D, brominated 9016-83-5D, brominated 26045-03-4
 (photosensitive composition containing quinonediazide and, as binder, for
 printing plate preparation)

L51 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1982:591253 HCAPLUS Full-text
 DOCUMENT NUMBER: 97:191253
 ORIGINAL REFERENCE NO.: 97:31827a,31830a
 TITLE: Light-sensitive copying material and process for producing a printing form from this material
 INVENTOR(S): Stahlhofen, Paul
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
 SOURCE: Eur. Pat. Appl., 33 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------------------------|------|----------|-----------------|------------|
| EP 50802 | A2 | 19820505 | EP 1981-108356 | 19811015 |
| EP 50802 | A3 | 19820818 | | |
| EP 50802 | B1 | 19850410 | | |
| R: AT, BE, CH, DE, FR, GB, IT, NL, SE | | | | |
| DE 3039926 | A1 | 19820527 | DE 1980-3039926 | 19801023 |
| CA 1151934 | A1 | 19830816 | CA 1981-387589 | 19811008 |
| ZA 8107130 | A | 19820929 | ZA 1981-7130 | 19811015 |
| AU 8176652 | A | 19820429 | AU 1981-76652 | 19811020 |
| JP 57111529 | A | 19820712 | JP 1981-166530 | 19811020 |
| JP 01049932 | B | 19891026 | | |
| US 4387152 | A | 19830607 | US 1981-313354 | 19811020 |
| FI 8103292 | A | 19820424 | FI 1981-3292 | 19811021 |
| BR 8106818 | A | 19820706 | BR 1981-6818 | 19811022 |
| PRIORITY APPLN. INFO.: | | | DE 1980-3039926 | A 19801023 |

OTHER SOURCE(S): MARPAT 97:191253

ED Entered STN: 12 May 1984

AB A photosensitive composition for the production of a printing plate is composed of a water-insol., aqueous alkaline solution-soluble binder, a photosensitive o- or p-quinonediazide or a mixture containing a compound cleaving off an acid group on exposure, a compound containing an acid-cleavable COC group, and a phenolic compound. The addition of the phenolic compound allows the baking temperature of the plate to be decreased without affecting the improved properties., such as solvent resistance and good printing layer hardness, resulting from the baking. In addition, baking at a lower temperature decreases the formation of ppt. of thermal decomposition products on the image background of the plate. Thus, an electrochem. grained and anodized Al plate was coated with a composition containing 2,3,4-trihydroxybenzophenone bis(1,2-naphthoquinone-2-diazido-5-sulfonate) 1.00, 2,2'-dihydroxy-1,1'-dinaphthylmethane bis(1,2-naphthoquinone-2-diazido-5-sulfonate) 0.70, cresol-HCHO copolymer 4.25, 4-(p-tolylmercapto)-2,5-diethoxybenzenediazonium hexafluorophosphate 0.12, 2,2-bis[4-hydroxy-3,5-bis(hydroxymethyl)phenyl]propane (I) 1.30, crystal violet 0.07, THF 50, and ethylene glycol monomethyl ether 40 parts at 2.20 g/m² (dry), exposed, developed, and heated at 180° for 8 min. The finished plate showed complete resistance to organic solvents and was capable of producing 350,000 prints vs. no solvent resistance and 100,000 prints for a I-free control.

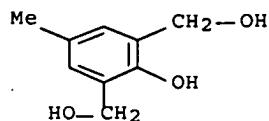
IT 91-04-3 3957-22-0 13653-12-8
 83210-96-2 83210-97-3

(photosensitive composition containing quinonediazide and, for printing plates required decreased baking temperature)

RN 91-04-3 HCPLUS

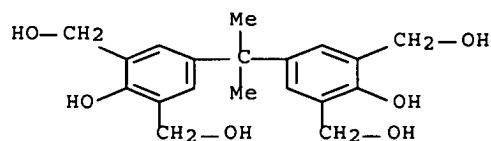
10/562,361

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



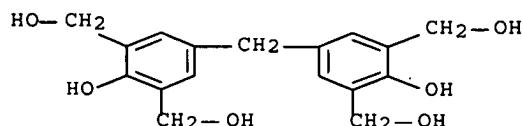
RN 3957-22-0 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(1-methylethylidene)bis[2-hydroxy- (CA INDEX NAME)



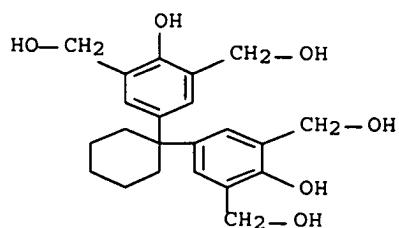
RN 13653-12-8 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-methylenebis[2-hydroxy- (CA INDEX NAME)



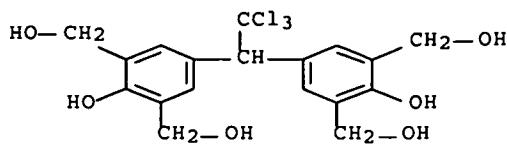
RN 83210-96-2 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-cyclohexylidenebis[2-hydroxy- (CA INDEX NAME)

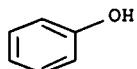


RN 83210-97-3 HCPLUS

CN 1,3-Benzenedimethanol, 5,5'-(2,2,2-trichloroethylidene)bis[2-hydroxy- (CA INDEX NAME)



IT 108-95-2, reactions
 (reaction of, with cyclohexanone)
 RN 108-95-2 HCAPLUS
 CN Phenol (CA INDEX NAME)



IC G03F007-08; G03F007-10
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 ST printing plate photosensitive phenol baking
 IT Phenols, uses and miscellaneous
 (photosensitive composition containing, for printing plates
 requiring decreased baking temperature)
 IT Printing plates
 (photosensitive compns. containing quinonediazide and phenolic compds.
 for fabrication of, with decreased baking temperature)
 IT 548-62-9 2481-94-9 5610-94-6 9016-83-5 32060-64-3 33910-44-0
 36451-09-9 38686-70-3 69432-41-3 69666-56-4 71241-63-9
 81125-13-5 83210-94-0 83210-95-1 83270-85-3
 (photosensitive composition containing phenol derivative and, for
 printing plates with decreased baking temperature)
 IT 91-04-3 3957-22-0 13653-12-8
 83210-96-2 83210-97-3
 (photosensitive composition containing quinonediazide and, for
 printing plates required decreased baking temperature)
 IT 108-95-2, reactions
 (reaction of, with cyclohexanone)

L51 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1979:558518 HCAPLUS Full-text
 DOCUMENT NUMBER: 91:158518
 ORIGINAL REFERENCE NO.: 91:25593a,25596a
 TITLE: Mixtures based on alkenyl-substituted phenols and
 polymercaptans
 INVENTOR(S): Green, George Edward; Zahid, Sheik Abdul-Cader
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Ger. Offen., 47 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------------------|
| DE 2901686 | A1 | 19790726 | DE 1979-2901686 | 19790117 |
| GB 2012781 | B | 19820317 | GB 1979-396 | 19790105 |
| GB 2012781 | A | 19790801 | | |
| CA 1136340 | A1 | 19821123 | CA 1979-319835 | 19790118 |
| FR 2415126 | A1 | 19790817 | FR 1979-1330 | 19790119 |
| FR 2415126 | B1 | 19830718 | | |
| US 4308367 | A | 19811229 | US 1979-4960 | 19790119 |
| JP 54113000 | A | 19790904 | JP 1979-6506 | 19790120 |
| PRIORITY APPLN. INFO.: | | | | GB 1978-2597 A 19780120 |

ED Entered STN: 12 May 1984

AB 2,2-Bis(3-allyl-4-hydroxyphenyl)propane (I), 2,2-bis[4-hydroxy-3-(1-propenyl)phenyl]propane, 2,2-bis(3,5-diallyl-4-hydroxyphenyl)propane, or a similar compound is used with (HSCH₂CO₂CH₂)₂ (II), C(CH₂O₂CCH₂SH)₄, a tris(2-hydroxy-3-mercaptopropyl) ether of a propoxylated triol, or a similar compound and, in some cases, with a hardener or epoxidized novolak to prepare compns. which are hardenable by light or radical catalysts and are useful for the preparation of coatings, printing plates, printed circuits, reinforced laminates, adhesives, etc. Thus, a mixture of I 100, II 68, benzil di-Me acetal 4, and hexamethylenetetramine 5 parts was mixed with glass fibers and exposed to UV light to prepare a tack-free prepreg. The prepreg was used to prepare a laminate which contained 57.2% glass fibers and had flexural strength 265 MN/m² after hardening at 180° for 1 h.

IT 9003-35-4D, glycidyl ethers

(crosslinking agents, for polyene-polythiol copolymers)

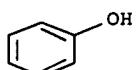
RN 9003-35-4 HCPLUS

CN Phenol, polymer with formaldehyde (CA INDEX NAME)

CM 1

CRN 108-95-2

CMF C6 H6 O



CM 2

CRN 50-00-0

CMF C H2 O

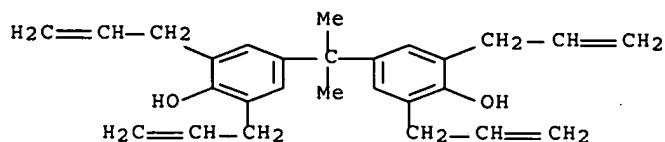


IT 71449-73-5DP, polymers with polythiols 71452-61-4P
(manufacture of crosslinked)

RN 71449-73-5 HCPLUS

10/562,361

CN Phenol, 4,4'-(1-methylethylidene)bis[2,6-di-2-propenyl- (9CI) (CA INDEX NAME)



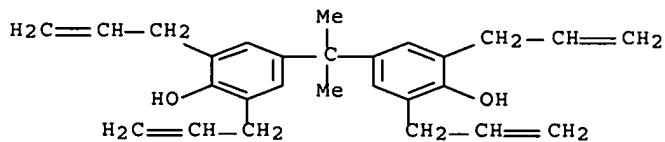
RN 71452-61-4 HCAPLUS

CN Acetic acid, mercapto-, 2-ethyl-2-[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl ester, polymer with 4,4'-(1-methylethylidene)bis[2,6-di-2-propenylphenol] (9CI) (CA INDEX NAME)

CM 1

CRN 71449-73-5

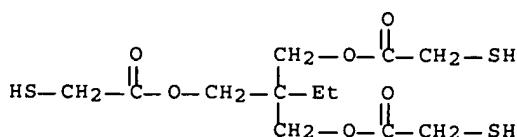
CMF C27 H32 O2



CM 2

CRN 10193-96-1

CMF C12 H20 O6 S3



IC C08L081-04; C08L081-02

CC 36-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74

IT 9003-35-4D, glycidyl ethers
(crosslinking agents, for polyene-polythiol copolymers)

IT 96-27-5DP, ethers with propoxylated triols, polymers with polyenes 1745-89-7DP, polymers with polythiols 10193-96-1DP, polymers with polyenes 25322-69-4DP, ethers with triols and thioglycerol, polymers with polyenes 71449-72-4DP, polymers with polythiols 71449-73-5DP, polymers with polythiols 71449-74-6DP,

polymers with polythiols 71449-75-7DP, polymers with polythiols
 71452-57-8P 71452-58-9P 71452-59-0P 71452-60-3P
 71452-61-4P 71489-64-0DP, polymers with polythiols
 (manufacture of crosslinked)

L51 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1976:128785 HCAPLUS Full-text
 DOCUMENT NUMBER: 84:128785
 ORIGINAL REFERENCE NO.: 84:20869a,20872a
 TITLE: Light-sensitive copying material
 INVENTOR(S): Teuscher, Leon A.
 PATENT ASSIGNEE(S): American Hoechst Corp., USA
 SOURCE: Ger. Offen., 267 pp. Division of Ger. Offen.
 2,024,244.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| DE 2065732 | A1 | 19750821 | DE 1970-2065732 | 19700519 |
| DE 2065732 | C2 | 19830519 | | |
| NL 7006715 | A | 19701124 | NL 1970-6715 | 19700508 |
| NL 168631 | B | 19811116 | | |
| NL 168631 | C | 19820416 | | |
| SE 369417 | B | 19740826 | SE 1970-6693 | 19700515 |
| SE 376492 | B | 19750526 | SE 1973-5098 | 19700515 |
| SU 568395 | A3 | 19770805 | SU 1970-1435202 | 19700515 |
| ES 379776 | A1 | 19740816 | ES 1970-379776 | 19700518 |
| PL 94400 | B1 | 19770831 | PL 1970-174772 | 19700518 |
| IL 34547 | A | 19830515 | IL 1970-34547 | 19700518 |
| ZA 7003395 | A | 19710630 | ZA 1970-3395 | 19700519 |
| GB 1312925 | A | 19730411 | GB 1970-24217 | 19700519 |
| AT 314350 | B | 19740325 | AT 1970-4467 | 19700519 |
| AT 314501 | B | 19740410 | AT 1971-553 | 19700519 |
| CA 973544 | A1 | 19750826 | CA 1970-83035 | 19700519 |
| NO 133035 | B | 19751117 | NO 1970-1907 | 19700519 |
| HU 167985 | B | 19760228 | HU 1970-AO314 | 19700519 |
| FI 53897 | B | 19780502 | FI 1970-1398 | 19700519 |
| CH 607099 | A5 | 19781130 | CH 1970-7390 | 19700519 |
| DK 143818 | B | 19811012 | DK 1970-2533 | 19700519 |
| DK 143818 | C | 19820315 | | |
| BE 750692 | A | 19701120 | BE 1970-750692 | 19700520 |
| FR 2048538 | A5 | 19710319 | FR 1970-18228 | 19700520 |
| JP 49048001 | B | 19741219 | JP 1970-42823 | 19700520 |
| SU 522824 | A3 | 19760725 | SU 1970-1482185 | 19701006 |
| NO 138817 | C | 19781115 | NO 1973-2024 | 19730515 |
| NO 138817 | B | 19780807 | | |
| US 3867147 | A | 19750218 | US 1973-410324 | 19731029 |
| PRIORITY APPLN. INFO.: | | | US 1969-826297 | A 19690520 |

ED Entered STN: 12 May 1984

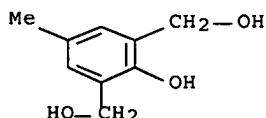
AB Light-sensitive copying materials, which can be used to prepare either copies or printing plates, are composed of a support carrying a light-sensitive layer containing a condensation product of an aromatic diazonium compound, such as a diphenylaminediazonium salt, with a carbonyl compound and/or an aromatic thio ether or a phenolic ether. Thus, a 2% aqueous solution of the chloride salt of the condensation product of 3-methoxydiphenylamine-4-diazonium sulfate and

4,4- bis(acetoxymethyl)diphenyl ether was coated on an Al foil support, exposed through a negative, developed with 1.5% aqueous H₃PO₄, and colored with an oily dye to give a serviceable printing plate.

IT 91-04-3D, 1,3-Benzenedimethanol, 2-hydroxy-5-methyl-, reaction product with methoxydiphenyldiazonium phosphate 108-95-2D, Phenol, reaction product with aryl diazonium salts and formaldehyde 32449-09-5D, Phenol, 2,6-bis(methoxymethyl)-4-methyl-, reaction product with formaldehyde and methoxydiphenyldiazonium chloride
(light-sensitive compns. containing, for diazo copying and printing plates)

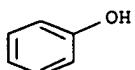
RN 91-04-3 HCPLUS

CN 1,3-Benzenedimethanol, 2-hydroxy-5-methyl- (CA INDEX NAME)



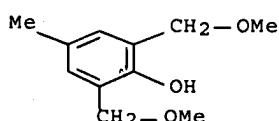
RN 108-95-2 HCPLUS

CN Phenol (CA INDEX NAME)



RN 32449-09-5 HCPLUS

CN Phenol, 2,6-bis(methoxymethyl)-4-methyl- (CA INDEX NAME)



IC G03C001-52A

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST arom diazonium salt printing plate; diazonium condensate printing plate

IT Diazo process

Printing plates

(light-sensitive compns. containing aromatic diazonium salt condensation products for)

IT Diazonium compounds

(salts, condensation products, light-sensitive compns. containing, for diazo copying and printing plates)

IT 1,2,3-Propanetricarboxamide, N,N',N''-tris(hydroxymethyl)-, reaction

product with diphenylaminediazonium phosphate
 1,3,5-Triazine-2,4,6-triamine, N,N,N',N',N'',N'''-hexakis(methoxymethyl)-, reaction product with formaldehyde and methoxydiphenylaminediazonium phosphate
 1,4-Benzenedicarboxamide, N,N'-bis(hydroxymethyl)-, reaction product with methoxydiphenylaminediazonium sulfate
 Benzenediazonium, 2,5-dimethoxy-4-[(4-methylphenyl)thio]-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with bis(hydroxymethyl)benzene
 Benzenediazonium, 2,5-dimethoxy-4-[methyl[1-oxo-2-(phenylthio)ethyl]amino]-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with bis(hydroxymethyl)benzene
 Benzenediazonium, 2-carboxy-4-(phenylamino)-, hydroxide, inner salt, reaction product with bis(methoxymethyl)diphenyl ether
 Benzenediazonium, 2-methoxy-6-phenoxy-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with bis(hydroxymethyl)benzene
 Benzenediazonium, 4-(phenylamino)-3-sulfo-, hydroxide, inner salt, reaction product with dimethylaniline and paraformaldehyde
 Benzenediazonium, 4-[(2,5-diethoxybenzoyl)amino]-2,5-diethoxy-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with bis(hydroxymethyl)benzene
 Benzenediazonium, 4-[methyl(1-naphthalenylmethyl)amino]-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with bis(methoxymethyl)diphenyl ether
 Benzenediazonium, 4-[methyl[2-(phenylthio)ethyl]amino]-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with bis(hydroxymethyl)benzene
 Butanediamide, N,N'-bis(hydroxymethyl)-, reaction product with diphenylaminediazonium sulfate
 Ethanediamide, N,N'-bis(hydroxymethyl)-, reaction product with diphenylaminediazonium sulfate
 Hexanediamide, N,N'-bis(hydroxymethyl)-, reaction product with diphenylaminediazonium sulfate
 Urea, N,N'-bis(hydroxymethyl)-, reaction product with diphenylaminediazonium chloride
 Zincate(2-), tetrachloro-, (T-4)-, bis(2-methoxy-6-phenoxybenzenediazonium), reaction product with bis(hydroxymethyl)benzene
 Zincate(2-), tetrachloro-, (T-4)-, bis[2,5-dimethoxy-4-[(4-methylphenyl)thio]benzenediazonium], reaction product with bis(hydroxymethyl)benzene
 Zincate(2-), tetrachloro-, (T-4)-, bis[2,5-dimethoxy-4-[methyl[1-oxo-2-(phenylthio)ethyl]amino]benzenediazonium], reaction product with bis(hydroxymethyl)benzene
 Zincate(2-), tetrachloro-, (T-4)-, bis[4-[(2,5-diethoxybenzoyl)amino]-2,5-diethoxybenzenediazonium], reaction product with bis(hydroxymethyl)benzene
 Zincate(2-), tetrachloro-, (T-4)-, bis[4-[methyl(1-naphthalenylmethyl)amino]benzenediazonium], reaction product with bis(methoxymethyl)diphenyl ether
 Zincate(2-), tetrachloro-, (T-4)-, bis[4-[methyl[2-(phenylthio)ethyl]amino]benzenediazonium], reaction product with bis(hydroxymethyl)benzene
 (light-sensitive compns. containing, for diazo copying and printing plates)
 IT Benzenediazonium, 2,5-dimethoxy-4-phenoxy-, (T-4)-tetrachlorozincate(2-) (2:1), reaction product with diisopropylidimethoxymethylbenzene
 Zincate(2-), tetrachloro-, (T-4)-, bis(2,5-dimethoxy-4-phenoxybenzenediazonium), reaction product with diisopropylidimethoxymethylbenzene

(light-sensitive compns. containing, for diazo copying materials and printing plates)

IT 64-10-8D, Urea, phenyl-, reaction product with diphenylaminediazonium sulfate and formaldehyde 68-34-8D, Benzenesulfonamide, 4-methyl-N-phenyl-, reaction product with diphenylaminediazonium sulfate and formaldehyde 70-55-3D, Benzenesulfonamide, 4-methyl-, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate 71-43-2D, Benzene, reaction product with diphenylaminediazonium sulfate, formaldehyde, and phenanthrene 80-39-7D, Benzenesulfonamide, N-ethyl-4-methyl-, reaction product with diphenylaminediazonium sulfate and formaldehyde 85-01-8D, Phenanthrene, reaction product with benzene, diphenylaminediazonium sulfate, and formaldehyde 91-01-0D, Benzenemethanol, α -phenyl-, reaction product with diphenylaminediazonium sulfate and formaldehyde 91-04-3D, 1,3-Benzenedimethanol, 2-hydroxy-5-methyl-, reaction product with methoxydiphenylaminediazonium phosphate 92-22-8D, Benzamide, N-(2,5-diethoxyphenyl)-, reaction product with diphenylaminediazonium sulfate and formaldehyde 92-52-4D, 1,1'-Biphenyl, methoxylated, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate 93-01-6D, 2-Naphthalenesulfonic acid, 6-hydroxy-, reaction product with diphenylaminediazonium sulfate and formaldehyde 98-54-4D, Phenol, 4-(1,1-dimethylethyl)-, reaction product with formaldehyde and methoxydiphenylaminediazonium chloride 99-96-7D, Benzoic acid, 4-hydroxy-, reaction product with diphenylaminediazonium sulfate and formaldehyde 100-02-7D, Phenol, 4-nitro-, reaction product with diphenylaminediazonium sulfate and formaldehyde 100-66-3D, Benzene, methoxy-, reaction product with diphenylaminediazonium sulfate and formaldehyde 101-16-6D, Benzenamine, 3-methoxy-N-phenyl-, reaction product with diphenylaminediazonium sulfate, chlorodiphenylamine, and formaldehyde 101-56-4D, Benzenediazonium, 4-(phenylamino)-, chloride, reaction product 101-84-8D, Benzene, 1,1'-oxybis-, derivs., reaction product with diphenylaminediazonium sulfate and formaldehyde 101-84-8D, Benzene, 1,1'-oxybis-, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate 103-85-5D, Thiourea, phenyl-, reaction product with diphenylaminediazonium sulfate and formaldehyde 108-67-8D, Benzene, 1,3,5-trimethyl-, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate 108-69-0D, Benzenamine, 3,5-dimethyl-, reaction product with 4-diazo-2-sulfodiphenylamine and formaldehyde 108-95-2D, Phenol, reaction product with aryl diazonium salts and formaldehyde 110-02-1D, Thiophene, reaction product with formaldehyde and methoxydiphenylaminediazonium phosphate 122-39-4D, Benzenamine, N-phenyl-, reaction product with formaldehyde, methyl diphenylamine, and methoxydiphenylaminediazonium phosphate 122-59-8D, Acetic acid, phenoxy-, reaction product with diphenylaminediazonium chloride and formaldehyde 122-99-6D, Ethanol, 2-phenoxy-, reaction product with formaldehyde and methoxydiphenylaminediazonium salts 132-65-0D, Dibenzothiophene, methoxylated, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate 150-33-4D, Benzenediazonium, 4-(phenylamino)-, sulfate (2:1), reaction product 298-12-4D, Acetic acid, oxo-, reaction product with diphenyldiazonium sulfate and phenoxyethanol 589-29-7D, 1,4-Benzenedimethanol, reaction product with aryl diazonium salts 620-84-8D, Benzenamine, 4-methyl-N-phenyl-, reaction product with formaldehyde and methoxydiphenylaminediazonium phosphate 628-94-4D, Hexanediamide, reaction product with diphenylaminediazonium sulfate and formaldehyde 836-30-6D, Benzenamine, 4-nitro-N-phenyl-, reaction product with formaldehyde and methoxydiphenylaminediazonium chloride 1205-71-6D,

Benzenamine, 4-chloro-N-phenyl-, reaction product with diphenyldiamediazonium sulfate, formaldehyde, and methoxydiphenylamine 1447-10-5D, 1,4-Benzenedimethanol, 2,3,5,6-tetramethyl-, diacetate, reaction product with carboxydiphenyldiamediazonium phosphate 1579-40-4D, Benzene, 1,1'-oxybis[4-methyl-, methoxylated, reaction product with formaldehyde and methoxydiphenyldiamediazonium sulfate 1606-67-3D, 1-Pyrenamine, reaction product with diphenyldiamediazonium sulfate and formaldehyde 1740-54-1D, Decanediamide, reaction product with formaldehyde and methoxydiphenyldiamediazonium sulfate 2416-40-2D, Benzenemethanol, 4,4'-oxybis-, diacetate, reaction product with methoxydiphenyldiamediazonium sulfate 2436-85-3D, 2-Naphthalenamine, N,N-dimethyl-, reaction product with diphenyldiamediazonium sulfate and formaldehyde 2509-26-4D, Benzene, 1,1'-oxybis[4-(methoxymethyl)-, reaction product with formaldehyde and methoxydiphenyldiamediazonium salts 3061-36-7D, Benzene, 1,4-diphenoxyl-, methoxylated, reaction product with formaldehyde and methoxydiphenyldiamediazonium sulfate 3701-01-7D, 1,3-Benzenedisulfonamide, reaction product with diphenyldiamediazonium sulfate and formaldehyde 4858-48-4D, [1,1'-Biphenyl]-4-diazonium, 2,4',5-triethoxy-, sulfate (1:1), reaction product with bis(methoxymethyl)diphenyl ether 6327-85-1D, 1,3-Benzenedimethanol, 2-methoxy-5-methyl-, reaction product with methoxydiphenyldiamediazonium sulfate 6631-37-4D, 2-Pyridinamine, N-phenyl-, reaction product with diphenyldiamediazonium sulfate and formaldehyde 7337-55-5D, Benzenediazonium, 4-(phenylamino)-, phosphate (1:1), reaction product 7371-81-5D, 1,3-Benzenedimethanol, 4,6-dimethyl-, reaction product with bis(acetoxyethyl)naphthalene and diphenyldiamediazonium sulfate 7400-08-0D, 2-Propenoic acid, 3-(4-hydroxyphenyl)-, reaction product with diphenyldiamediazonium chloride and formaldehyde 7456-77-1D, Benzenediazonium, 2-methoxy-4-(phenylamino)-, phosphate (1:1), reaction product 7522-62-5D, 1,4-Benzenedimethanol, 2,3,5,6-tetramethyl-, reaction product with methoxydiphenyldiamediazonium sulfate 13510-60-6D, Benzenediazonium, 2-methoxy-4-(phenylamino)-, chloride, reaction product 21521-76-6D, Phosphonic acid, [(3-methylphenoxy)methyl]-, reaction product with diphenyldiamediazonium sulfate and formaldehyde 21521-81-3D, Phosphonic acid, [(4-chlorophenoxy)methyl]-, reaction product with formaldehyde and methoxydiphenyldiamediazonium chloride 24431-56-9D, 2-Naphthalenesulfonic acid, 6-methoxy-, reaction product with diphenyldiamediazonium sulfate and formaldehyde 29060-60-4D, Benzene, 1,1'-oxybis[(methoxymethyl)-, reaction product with methoxydiphenyldiamediazonium sulfate 30525-89-4D, Paraformaldehyde, reaction product with aryl diazonium compds. 32445-22-0D, 1,3-Benzenedimethanol, 4,6-bis(1-methylethyl)-, reaction product with methoxyphenyldiamediazonium sulfate 32445-23-1D, 1,5-Naphthalenedimethanol, diacetate, reaction product with dimethyldimethylolbenzene and diphenyldiamediazonium sulfate 32449-01-7D, Thiophene, 2,5-bis(ethoxymethyl)-, reaction product with methoxydiphenyldiamediazonium phosphate 32449-02-8D, Anthracene, 9,10-bis(methoxymethyl)-, reaction product with diphenyldiamediazonium phosphate 32449-03-9D, 1,4-Benzenedimethanol, α,α' -diphenyl-, reaction product with diphenyldiamediazonium sulfate 32449-04-0D, Benzene, 1,3-bis(methoxymethyl)-4,6-bis(1-methylethyl)-, reaction product with dimethoxyphenoxybenzenediazonium chloride 32449-05-1D, Benzene, 1,1'-thiobis[4-(methoxymethyl)-, reaction product with methoxydiphenyldiamediazonium sulfate 32449-07-3D, Benzenemethanol, 4,4'-[1,3-propanediylbis(oxy)]bis-, reaction product with formaldehyde and methoxydiphenyldiamediazonium sulfate 32449-08-4D, Benzene, 1,1'-methylenebis[4-(methoxymethyl)-, reaction product with formaldehyde and methoxydiphenyldiamediazonium sulfate

32449-09-5D, Phenol, 2,6-bis(methoxymethyl)-4-methyl-, reaction product with formaldehyde and methoxydiphenylaminediazonium chloride 36305-05-2D, Benzenediazonium, 2-methoxy-4-(phenylamino)-, sulfate (1:1), reaction product 49732-38-9D, Benzenediazonium, 4-[(4-methoxyphenyl)amino]-, sulfate (1:1), reaction product with dimethylolterephthalamide 58765-06-3D, Benzenediazonium, 4-[(2-carboxyphenyl)amino]-, phosphate (1:1), reaction product with bis(acetoxyethyl)durol 58765-08-5D, Phosphonic acid, [[4-(1,1-dimethylethyl)phenoxy]methyl]-, reaction product with diphenylaminediazonium sulfate and formaldehyde 58765-09-6D, Benzene, 4-methyl-1-(1-methylethyl)-2-phenoxy-, methoxylated, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate 58765-10-9D, Benzene, 2-bromo-1-methoxy-4-phenoxy-, methoxylated, reaction product with formaldehyde and methoxydiphenylaminediazonium sulfate.

(light-sensitive compns. containing, for diazo copying and printing plates)

=> d his nofile

(FILE 'HOME' ENTERED AT 10:19:46 ON 30 JUN 2008)

FILE 'HCAPLUS' ENTERED AT 10:19:53 ON 30 JUN 2008

L1 1 SEA ABB=ON PLU=ON US20070099130/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 10:20:05 ON 30 JUN 2008

L2 5 SEA ABB=ON PLU=ON (108-95-2/B1 OR 2203-14-7/B1 OR
317804-55-0/B1 OR 54845-41-9/B1 OR 56272-52-7/B1)

L3 STR

L4 STR

L5 50 SEA SSS SAM L3 AND L4

L6 STR L3

L7 29 SEA SSS SAM L6 AND L4

L8 22 SEA SSS SAM L6

L9 STR L6

L10 19 SEA SSS SAM L9

L11 SCR 1918

L12 22 SEA SSS SAM L9 NOT L11

L13 STR L9

L14 22 SEA SSS SAM L13 NOT L11

L15 SCR 1992

L16 25 SEA SSS SAM L13 NOT (L11 OR L15)

L17 3232 SEA SSS FUL L13 NOT (L11 OR L15)

L18 3 SEA ABB=ON PLU=ON L17 AND L2

L19 2 SEA ABB=ON PLU=ON L2 NOT L18

L20 1 SEA ABB=ON PLU=ON L19 NOT MAN/CI

L21 STR

SAV L17 LE361/A

L22 50 SEA SUB=L17 SSS SAM L21

L23 813 SEA ABB=ON PLU=ON L17 AND 3/NR

L24 1044 SEA SUB=L17 SSS FUL L21

SAV L24 LE361A/A

L25 424 SEA ABB=ON PLU=ON L24 AND 3/NR

L26 36 SEA ABB=ON PLU=ON L25 AND 4-HYDROXYPHENYL?/CNS

L27 388 SEA ABB=ON PLU=ON L25 NOT L26

L28 100 SEA ABB=ON PLU=ON L25 AND 4-HYDROXY?/CNS

L29 324 SEA ABB=ON PLU=ON L25 NOT L28

L30 9433 SEA ABB=ON PLU=ON 108-95-2/CRN

L31 26 SEA ABB=ON PLU=ON L17 AND L30

FILE 'HCAPLUS' ENTERED AT 11:22:42 ON 30 JUN 2008

L32 186 SEA ABB=ON PLU=ON L28

L33 715 SEA ABB=ON PLU=ON L29

L34 66 SEA ABB=ON PLU=ON L32 AND L33

L35 4775 SEA ABB=ON PLU=ON L17

L36 35397 SEA ABB=ON PLU=ON L30

L37 147 SEA ABB=ON PLU=ON L35 AND L36

L38 0 SEA ABB=ON PLU=ON L37 AND L1

L39 80249 SEA ABB=ON PLU=ON L20

L40 306 SEA ABB=ON PLU=ON L35 AND L39

L41 1 SEA ABB=ON PLU=ON L40 AND L1

L42 32 SEA ABB=ON PLU=ON L34 AND PHOTOG?/SC, SX

L43 35 SEA ABB=ON PLU=ON L37 AND PHOTOG?/SC, SX

L44 41 SEA ABB=ON PLU=ON L40 AND PHOTOG?/SC, SX

L45 75 SEA ABB=ON PLU=ON L43 OR L44

10/562,361

L46 1 SEA ABB=ON PLU=ON L45 AND L1
L47 1 SEA ABB=ON PLU=ON L45 AND PHENOLIC DEVELOPER?
L48 30 SEA ABB=ON PLU=ON L45 AND (RECORD? OR PRINT?)
L49 2 SEA ABB=ON PLU=ON L42 AND L48
L50 32 SEA ABB=ON PLU=ON L42 OR L49
L51 28 SEA ABB=ON PLU=ON L48 NOT